

TOOLS



SEITHER & ELLIS, INC.

228-230 FERRY STREET, NEWARK, N. J.

32-34-36 MERCHANT STREET

TELEPHONES: MARKET 3 - 6490 - 6491 - 6492 - 6493

CATALOG - 42



Millers Falls Company

Established 1868

Officers

E. P. Stoughton, *Chairman*

Philip Rogers, *President*

John W. Smead, *Vice-President*

George U. Hatch, *Vice-President*

Earl D. Holtby, *Secretary-Treasurer*

70th Anniversary

CATALOG No. 42

General Office

GREENFIELD, MASSACHUSETTS

United States of America

CHICAGO

Office and Warehouse

100 So. Jefferson Street, Chicago, Ill.

NEW YORK

Office and Warehouse

28 Warren Street, New York City

FACTORIES

Greenfield, Massachusetts

Millers Falls, Massachusetts

CABLE ADDRESSES

"Millerfall" Greenfield

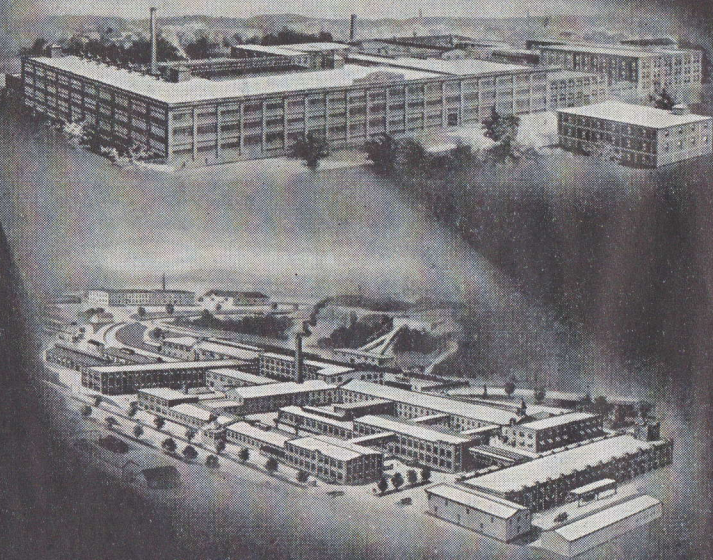
"Prattgood" Greenfield

CODES

Acme, A. B. C. 5th Edition, Lieber's

Western Union and Bentley's

PLANTS



**MILLERS FALLS
TOOLS**

SINCE
1868

**GOODELL
PRATT**

1500 GOOD TOOLS

Foreword

This new No. 42 Catalog, which gives a complete picture of the consolidated lines of Millers Falls and Goodell-Pratt tools manufactured by Millers Falls Company, supersedes our Catalog No. 41 issued January 1, 1935.

During this three-year period we have added many new lines and many individual items, all of which are included in this catalog, and such items are indicated with the word "New." You will note also that several items have been discontinued. Since our merger with Goodell-Pratt Company in 1931, we have endeavored to adjust the lines of the two companies in such a manner that only tools for which there is a ready market are offered to our customers.

We illustrate in this catalog for the first time our complete Electric Tool line. We have manufactured a complete line of Electric Tools for about ten years. Our Electric Tools are not sold to all of our customers. Our policy in the sale of Electric Tools is to distribute through selective or exclusive distributors. We have territories open in some sections of the United States and foreign countries and will be glad to give our customers further details of our policy upon request.

You will note in this catalog that there is constant reference to the fact that this is the Seventieth Anniversary of Millers Falls Company. For seventy years this company has been manufacturing tools of quality. Today we maintain the same high standards of manufacture as in previous years. A perusal of this catalog cannot fail likewise to impress our customers with the fact that we make a very broad assortment of tools which includes eighteen major lines complete. It is our aim to extend and improve our lines further in the years to come.

We express our deep appreciation for your loyal support during this seventy-year period.

MILLERS FALLS COMPANY

Greenfield, Mass., U. S. A.

January, 1938.

Important Information

Catalog No. 42

This second consolidated catalog of Millers Falls and Goodell-Pratt tools shows every active item that we manufacture and cancels all previous issues of both lines. All old catalogs should be destroyed.

New Tools

Many interesting new tools have been added to our lines since the last catalog was published. These new items are clearly indicated by a check and the word "new" in the margin.

Prices

The list prices shown in this catalog are those in effect at the time of publication and are subject to change without notice.

Warranty

Every tool stamped with the Millers Falls or Goodell-Pratt name is warranted free from imperfections and defects in material or workmanship. Should such defects appear, we will, at our option, cheerfully repair or replace the tool without charge. Under no circumstances, however, can we assume the responsibility for breakage where flaws do not appear, nor will we replace tools which have suffered from abusive treatment or have been stamped with the owner's name, changed, or otherwise experimented upon. No dealer is authorized to make replacements for us. Articles claimed defective must be returned, charges paid, for inspection, direct to the factory at Greenfield and not to any of our branch offices.

Shipping Instructions

In ordering, please be sure to give full and explicit directions for shipment and they will be carefully followed. If no shipping instructions are given, we will use our own best judgment in forwarding shipments. All goods are at the risk of the purchaser after delivery in good order to the forwarders. We cannot hold ourselves responsible for articles lost in transit but will use our best efforts in the interest of the purchaser to locate the goods or have proper restitution made.

Service from Warehouses

Warehouse stocks are maintained in New York and Chicago for the convenience of our customers. Shipments from these stocks are subject to a very reasonable service charge. These charges will be found in our current price sheets.

Parts and Repairs

Repair parts can be furnished for any tool shown in this catalog. Customers should state clearly just what new parts are wanted. Owing to the considerable expense of round trip transportation, in addition to repair costs, it is recommended that the owner make his own repairs whenever it is possible.

Estimates on repairs and prices of repair parts will be gladly furnished on request.

Returned Goods

The return of goods for credit cannot be accepted without permission from the main office. Shipping instructions should be obtained for any goods to be returned for any other reason than for repair.

Terms

Invoices are payable at the main office in Greenfield, in New York or Boston funds, net 30 days from date rendered or 2 per cent discount payment in ten days.

Shipments are F. O. B. cars Greenfield or Millers Falls, Massachusetts. Freight allowed on one hundred pound shipments of Hack Saw Blades, Electric Tools or Auger Bits. These terms subject to regulations that may be imposed through government regulation.

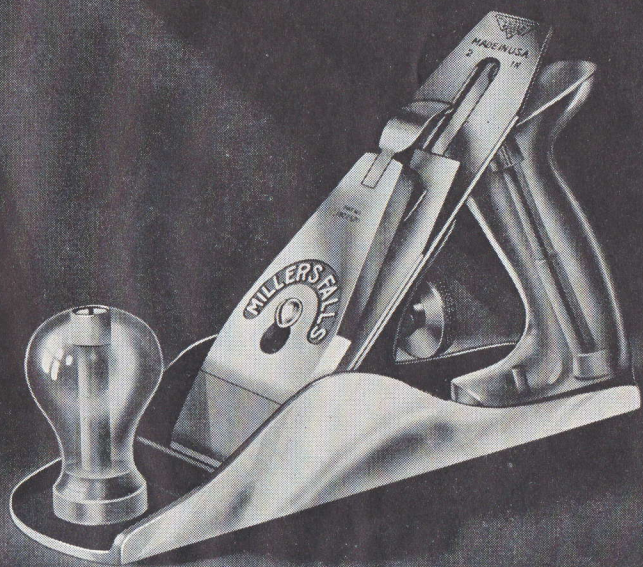
Electrotypes

The free use of our electrotypes for advertising purposes is extended to all of our customers. Electrotypes of our tools will be supplied in two sizes: the size used in our large catalog and a small size for use in a 2 1/4-inch column. We cannot attempt to make up any other special sizes.

Invitation

A most cordial invitation is extended to Jobbers, Distributors and Dealers to visit our factories and get acquainted with the personnel back of Millers Falls tools.

PLANES



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

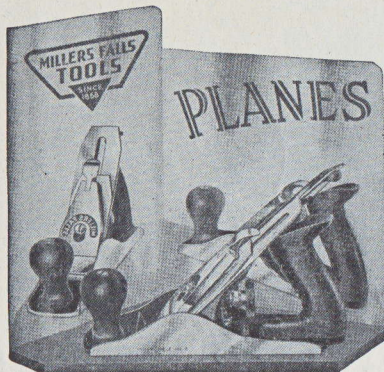
SINCE
1868

Millers Falls Bench Planes

From any angle you will find Millers Falls Bench Planes a superior product. The excellence of design, advanced construction and fine workmanship are admirably set off by the beautiful finish.

Three construction features exclusive with the Millers Falls Line that are largely responsible for their outstanding performance are the three-point bearing lever cap, solid tool steel cutter and perfect fitting cutter cap.

Other improved features include reinforced seasoned bottoms, rigidly seated frogs, self-aligning lever cap tip, comfortable solid rosewood knobs and handles and sensitive side and depth adjustment of cutter.



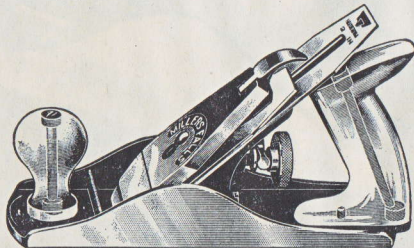
No. 5500 NEW Plane Display

This very beautiful, modernistic chromium counter display will be furnished free to any dealer recognizing the merchandising possibilities the Millers Falls Line offers and who will stock an assortment of the line that will adequately serve his trade.

The brilliant chromium panels at the back give two vivid reflections from different angles of the No. 8, 9 or 209 Smooth Planes displayed on the base. It attracts attention, compels interest and reveals at a glance the fine details and beautiful finish of the side, front and back. The type of display that creates sales and adds character to any tool department. Width, 13½ inches; height, 11½ inches.

De Luxe Smooth Plane

 NEW



This beautiful new plane has an irresistible appeal to every lover of fine quality tools. The transparent red knob and handle are made of Permaloid, an indestructible plastic that contrasts pleasingly with the brilliant chrome plating and the black enameled inside of the bottom.

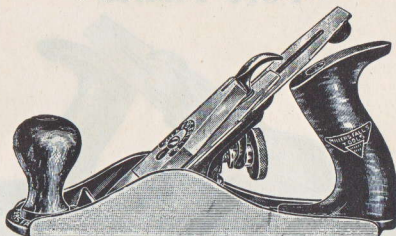
Constructional details include a three-point lever cap bearing, solid tool steel cutter, honed fit cutter cap, reinforced bottom, sensitive end and side adjustment of cutter and all the other refinements that make Millers Falls Planes outstanding.

Smooth chromium plated bottom.

No. 209	De Luxe Smooth	Length 9 inches	Cutter 2 inches	Weight 3¾ lbs.	Price Each \$6.50
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Packed one in a special box.

Smooth Planes



End and side adjustment of cutters. Cutters one solid piece of fine, high carbon steel well ground and polished. Bottoms and sides nicely polished. Inside of bottoms finished in glossy black enamel, frogs in red enamel. Lever cap polished, nicked and buffed. Selected rose-wood knobs and handles.

Smooth Planes are used for finishing broad, flat surfaces. They are short in length so that low spots can be reached if the surface is uneven.

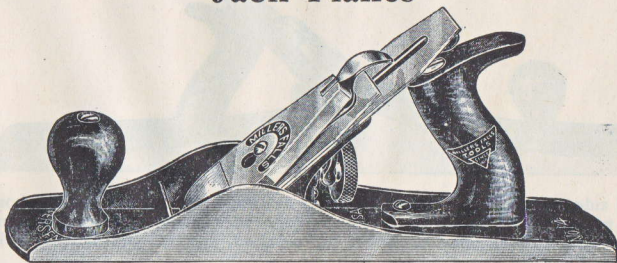
Smooth Bottom

	Length	Cutter	Weight	Code	Price Each
No. 7 Smooth	7 inches	1½ inches	2¼ lbs.	EAVES	\$4.20
No. 8 Smooth	8 inches	1¾ inches	3¼ lbs.	EATER	4.20
No. 9 Smooth	9 inches	2 inches	3¾ lbs.	EAMES	4.30
No. 10 Smooth	10 inches	2¾ inches	4½ lbs.	EAMAT	5.30

Corrugated Bottom

	Length	Cutter	Weight	Code	Price Each
No. 8C Smooth	8 inches	1¾ inches	3¼ lbs.	EAWEL	\$4.40
No. 9C Smooth	9 inches	2 inches	3¾ lbs.	EAMOG	4.50
No. 10C Smooth	10 inches	2¾ inches	4½ lbs.	EAWOR	5.60

Jack Planes



Jack Planes are used on the edges of boards for rough, heavy cuts and also the final truing up preparatory to jointing.

Smooth Bottom

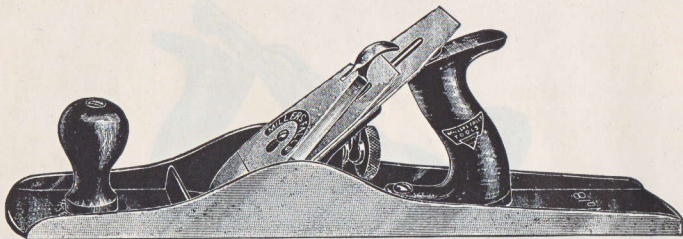
	Length	Cutter	Weight	Code	Price Each
No. 11 Jack	11½ inches	1¾ inches	3¾ lbs.	EAWIT	\$4.50
No. 14 Jack	14 inches	2 inches	4¾ lbs.	EAWUG	4.80
No. 15 Jack	15 inches	2¼ inches	6¾ lbs.	EARLS	6.20

Corrugated Bottom

	Length	Cutter	Weight	Code	Price Each
No. 14C Jack	14 inches	2 inches	4¾ lbs.	EAVAD	\$5.00
No. 15C Jack	15 inches	2¼ inches	6¾ lbs.	EAVOQ	6.50

Packed one in a box.

Fore Planes



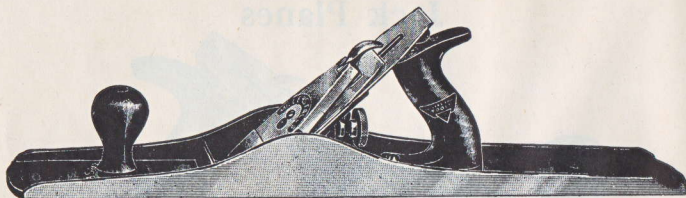
End and side adjustment of cutters. Cutters one solid piece of fine, high carbon steel well ground and polished. Bottoms and sides nicely polished. Inside of bottoms finished in glossy black enamel, frogs in red enamel. Lever cap polished, nicked and buffed. Selected rose-wood knobs and handles.

Fore Planes are long Jacks or short Jointers. Some prefer them to the Jointer for their lighter weight.

Smooth Bottom					
	Length	Cutter	Weight	Code	Price Each
No. 18 Fore	18 inches	2 $\frac{3}{8}$ inches	6 $\frac{1}{4}$ lbs.	EABON	\$6.80
Corrugated Bottom					
No. 18C Fore	18 inches	2 $\frac{3}{8}$ inches	6 $\frac{1}{4}$ lbs.	EACOR	\$7.10

Packed one in a box.

Jointer Planes



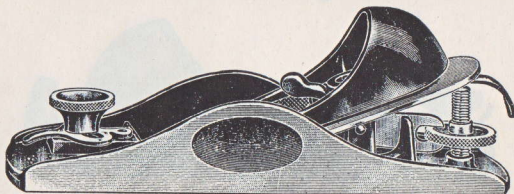
End and side adjustment of cutters. Cutters one solid piece of fine, high carbon steel well ground and polished. Bottoms and sides nicely polished. Inside of bottoms finished in glossy black enamel, frogs in red enamel. Lever cap polished, nicked and buffed. Selected rose-wood knobs and handles.

Jointer Planes are used for finishing, more generally for dressing edges to a light tight fit that are to be glued or joined together.

Smooth Bottom					
	Length	Cutter	Weight	Code	Price Each
No. 22 Jointer	22 inches	2 $\frac{3}{8}$ inches	8 $\frac{1}{8}$ lbs.	EADEN	\$8.40
No. 24 Jointer	24 inches	2 $\frac{5}{8}$ inches	9 $\frac{3}{4}$ lbs.	EACUL	9.70
Corrugated Bottom					
No. 22C Jointer	22 inches	2 $\frac{3}{8}$ inches	8 $\frac{1}{8}$ lbs.	EAFER	\$8.70
No. 24C Jointer	24 inches	2 $\frac{5}{8}$ inches	9 $\frac{3}{4}$ lbs.	EAGOL	10.10

Packed one in a box.

Adjustable Block Planes

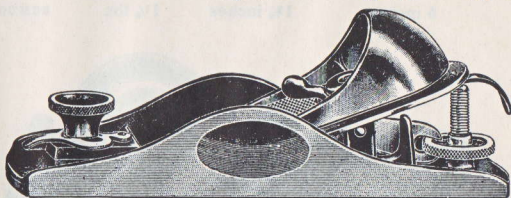


Adjustable throat with end and side adjustment of cutters. Cutters one solid piece of fine, high carbon steel. Cast caps with lever cam lock. Bottoms and sides nicely polished. Inside of bottoms finished in glossy black enamel.

The bevel of the cutter of a Block Plane is on the upper side and the iron is set at an angle of 20 degrees to the bottom. They are used for working across the grain and many other places where a light plane, easily controlled with one hand, is a convenience.

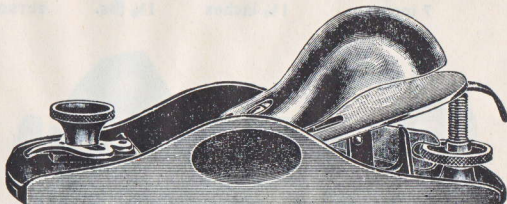
Enamel Trimming

	Length	Cutter	Weight	Code	Price Each
No. 16 Block	6 inches	1 3/8 inches	1 1/2 lbs.	EBENS	\$2.20
No. 17 Block	7 inches	1 3/8 inches	1 5/8 lbs.	EBORG	2.40



Nickel Trimming

	Length	Cutter	Weight	Code	Price Each
No. 26 Block	6 inches	1 3/8 inches	1 1/2 lbs.	EBONY	\$2.90
No. 27 Block	7 inches	1 3/8 inches	1 5/8 lbs.	EBROL	3.20



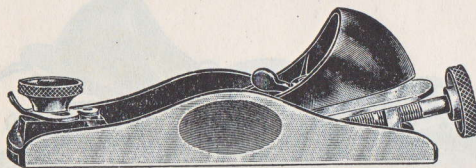
Nickel Trimming

Same as above, but with polished and nickered cap with knuckle joint lever clamp.

	Length	Cutter	Weight	Code	Price Each
No. 36 Block	6 inches	1 3/8 inches	1 1/2 lbs.	EBRAG	\$3.00
No. 37 Block	7 inches	1 3/8 inches	1 5/8 lbs.	EBREL	3.30

Packed one in a box.

Low Angle Block Planes



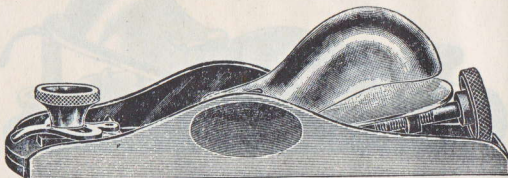
Adjustable throat. Screw end adjustment of cutter. Cutters made of one solid piece of fine, high carbon steel set at an angle of 12 degrees, with the bottom making it particularly well suited for cutting across the grain of hard woods.

Black Enamel Trimming

	Length	Cutter	Weight	Code	Price Each
No. 56 Block	6 inches	1 $\frac{3}{8}$ inches	1 $\frac{1}{4}$ lbs.	ECROW	\$2.40
No. 57 Block	7 inches	1 $\frac{3}{8}$ inches	1 $\frac{3}{8}$ lbs.	ECTOL	2.80

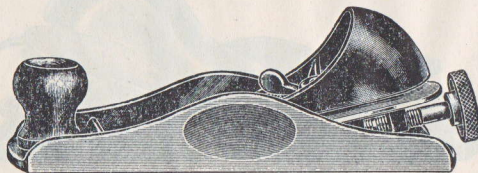
Nickel Trimming

No. 46 Block	6 inches	1 $\frac{3}{8}$ inches	1 $\frac{1}{4}$ lbs.	ECMUG	\$2.80
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Same as No. 57, but with polished and nickeled cap with knuckle joint lever lock. **Nickel trimming.**

	Length	Cutter	Weight	Code	Price Each
No. 47 Block	7 inches	1 $\frac{3}{8}$ inches	1 $\frac{3}{8}$ lbs.	ECTRO	\$3.30

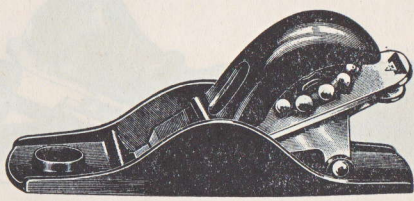


Similar to No. 46, but with non-adjustable throat and a rosewood knob handle. **Nickel trimming.**

	Length	Cutter	Weight	Code	Price Each
No. 66 Block	6 inches	1 $\frac{3}{8}$ inches	1 $\frac{1}{4}$ lbs.	ECPEK	\$2.40

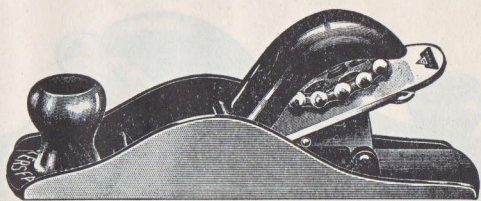
Packed one in a box.

Adjustable Block Planes



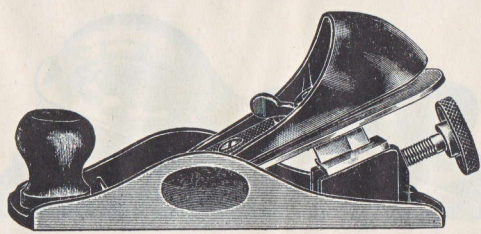
Lever end adjustment. Screw operated cap clamp. Bottoms polished. Sides black enameled.

No. 55 Block	Length 5½ inches	Cutter 1¾ inches	Weight ⅞ lb.	Code EELS	Price Each \$1.10
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Longer and wider than No. 55, with polished sides and a rosewood knob handle. Lever end adjustment. Screw operated cap clamp.

No. 97 Block	Length 7 inches	Cutter 1¾ inches	Weight 1½ lbs.	Code EDANS	Price Each \$1.70
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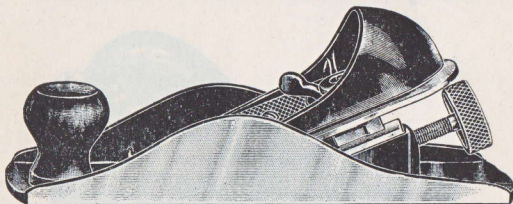
Cast cap with lever cam lock. Screw end adjustment of cutter. Polished sides. Rosewood knob handle.

No. 45 Block	Length 5½ inches	Cutter 1¾ inches	Weight 1½ lbs.	Code EDROX	Price Each \$1.70
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Packed one in a box.



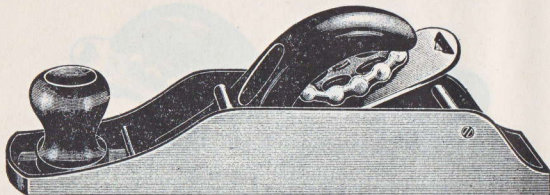
Adjustable Block Plane



Longer and wider than No. 45. Screw end adjustment of cutter. Cast cap with lever cam lock. Polished sides. Rosewood knob handle.

No. 75 Block	Length 7 inches	Cutter 1 $\frac{1}{8}$ inches	Weight 1 $\frac{1}{2}$ lbs.	Code EDRAL	Price Each \$1.70
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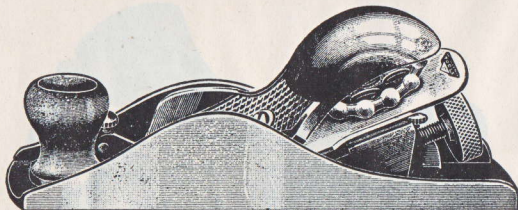
Double End Block Plane



Equipped with two throats and two cutter seats. Block Plane as illustrated and a rabbet with cutter reversed.

No. 68 Block	Length 8 inches	Cutter 1 $\frac{1}{8}$ inches	Weight 1 $\frac{1}{8}$ lbs.	Code EDFEN	Price Each \$1.90
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Block and Rabbet Plane

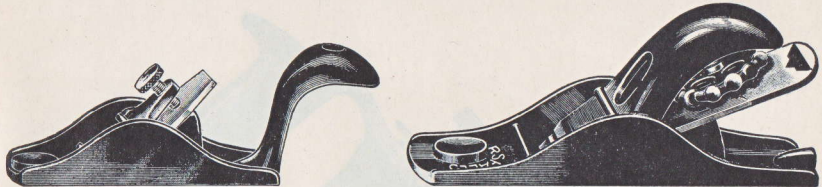


Right side can be easily removed to convert this from a Block to a Rabbet Plane. End adjustment of the skew cutter. Nickel trimming.

No. 07	Length 7 inches	Cutter 1 $\frac{3}{4}$ inches	Weight 1 $\frac{1}{8}$ lbs.	Code ESCOW	Price Each \$2.90
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Packed one in a box.

Non-Adjustable Block Planes



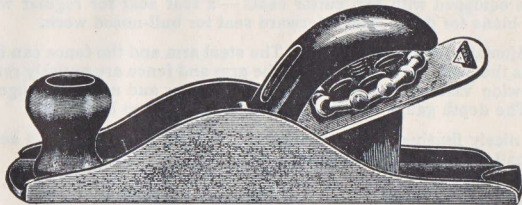
No. 3

No. 5

Inexpensive but serviceable planes. Screw operated cap clamps. Bottoms polished. Sides and cap black enameled.

No. 33 exactly the same as No. 3, but without handle.

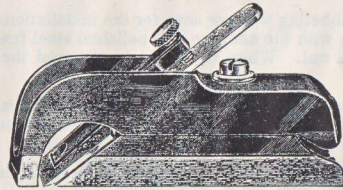
	Length	Cutter	Weight	Code	Price Each
No. 33 Block	3½ inches	1 inch	¼ lb.	EDOOL	\$0.50
No. 3 Block	3½ inches	1 inch	¾ lb.	EDRUY	.60
No. 5 Block	5½ inches	1¾ inches	7⁄8 lb.	EDWAD	.90



Similar to above, but longer and wider, with rosewood knob handle. Screw operated cap clamp. Polished sides.

	Length	Cutter	Weight	Code	Price Each
No. 87 Block	7 inches	1½ inches	1¾ lbs.	EDOLT	\$1.10

Bull-Nosed Rabbit Plane

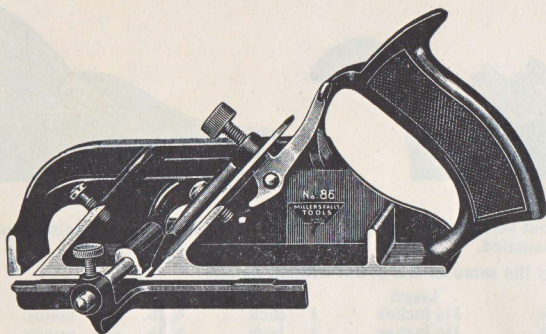


Especially adapted for working in close quarters and up-into corners. Polished bottom and sides. Black enamel trim.

	Length	Width	Weight	Code	Price Each
No. 4 Rabbit	4 inches	1 inch	⅝ lb.	EFACE	\$0.90

Packed one in a box.

Rabbet and Fillister Plane



This addition to the Millers Falls Plane Line has every desirable feature in a rabbet plane built into it. It is equipped with two cutter seats—a rear seat for regular work with a lever adjustment of the blade for depth, and a forward seat for bull-nosed work.

The fence is adjustable on the steel arm. The steel arm and the fence can be used on either side of the plane as the work requires. When the arm and fence are entirely removed, the plane can be used for a wide variety of uses. A three-point spur and a depth gauge are also part of the equipment. The depth gauge can be removed entirely when desired.

Body of plane nicely finished in black enamel. Bottom and both sides accurately ground. Trimmings and small steel parts nickel plated.

	Length	Cutter	Weight	Code	Price Each
No. 85 Rabbet	8½ inches	1½ inches	3 lbs.	EDMAN	\$2.90

Packed one in a box.



NEW

No. 95 Weather-Strip Plane

Specially designed for rabbeting window sash for the installation of metal weather stripping. It is identical to No. 85 above with the addition of a polished steel fence which is clamped rigidly in place by a knurled thumb nut. When the fence is removed the plane can be used for all ordinary types of rabbeting.

There are two seats for the cutter, one for regular work and a forward seat for bull-nosed work. Regular equipment includes spur and removable depth gauge, also an adjustable guide that can be used on either side of the plane or left off entirely, giving a wide range of usefulness.

The cutter, 1½ inches wide, is made of solid, fine quality high carbon steel and is adjustable for depth when used in the rear seat.

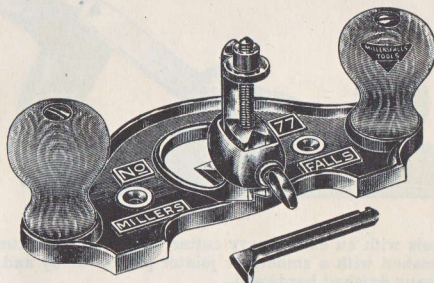
Frame nicely black enameled. Exposed steel parts well polished or nickel plated.

	Length	Cutter	Weight	Price Each
No. 95 Weather Strip	8½ inches	1½ inches	3¼ lbs.	\$4.40

Packed one in a box.



No. 77 Router Plane

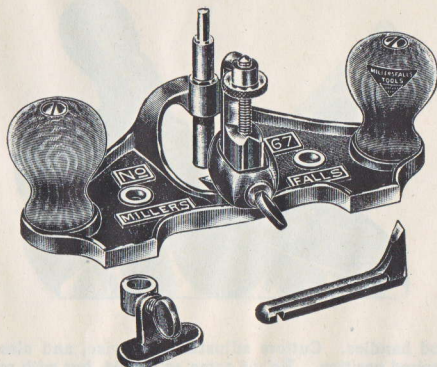


Two cutters supplied. Cutters adjustable in holder. Cutters held in front holder for regular work and back holder for bull-nosed work. Closed throat. Mahogany finished handles. Nickel plated.

	Length	Cutters	Weight	Code	Price Each
No. 77 Router	7½ inches	¼ and ½ inch	2½ lbs.	EFRAD	\$3.60

Packed one in a box.

No. 67 Router Plane

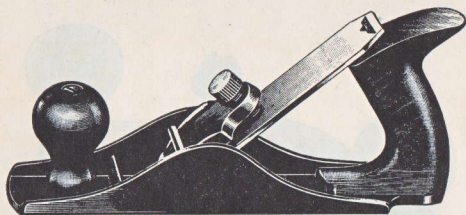


Same as above, with open throat and attachment for closing the throat when used on narrow surfaces and controlling the depth of cut.

	Length	Cutters	Weight	Code	Price Each
No. 67 Router	7½ inches	¼ and ½ inch	2½ lbs.	EFRUE	\$4.50

Packed one in a box.

Scrub Planes

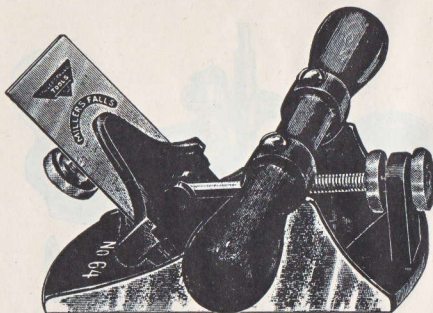


Sturdy, well-built tools with an extra heavy cutter with rounded cutting edge for preparing rough surfaces to be finished with a smooth or jointer plane. Body and cap black enameled. Knob and handle mahogany finished hardwood.

	Length	Cutter	Weight	Code	Price Each
No. 9½ Scrub	9½ inches	1½ inches	2½ lbs.	EGGER	\$2.40
No. 10½ Scrub	10½ inches	1½ inches	2½ lbs.	EGRAM	3.00

Packed one in a box.

Scraper Planes



Double grip rosewood handles. Cutters adjustable endwise, and also to any angle. Can be securely locked at desired position. No. 65 same as No. 64, but with rosewood bottom.

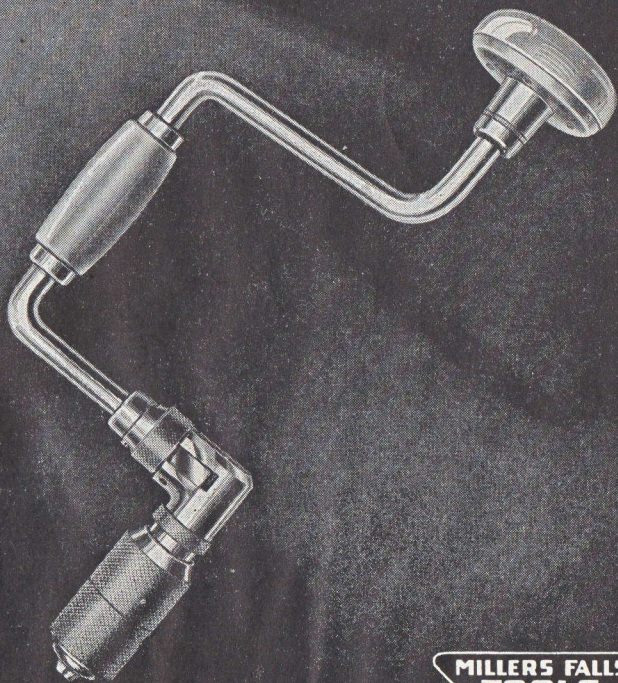
	Length	Cutter	Weight	Code	Price Each
No. 64 Scraper	6¼ inches	2¾ inches	3¾ lbs.	EGLAT	\$4.60
No. 65 Scraper	6¼ inches	2¾ inches	4 lbs.	EGORT	6.30

Extra rosewood bottoms \$0.50

Extra scraper blades \$0.50

Packed one in a box.

BRACES

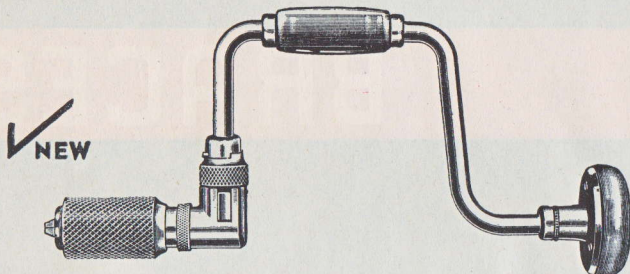


**GODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

Parsons De Luxe Brace



This beautiful tool, illustrated in color on the preceding page, was conceived by W. J. Parsons, our designer and engineer, to commemorate his fiftieth anniversary with Millers Falls.

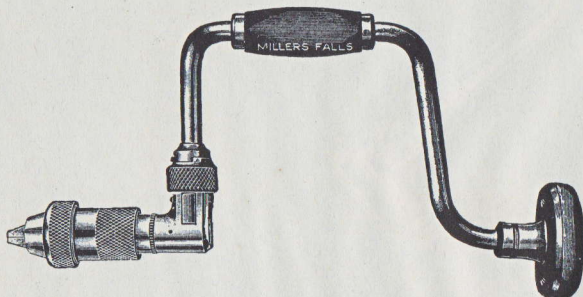
The chuck is full ball bearing with steel jaws that hold square shanks, $\frac{1}{8}$ to $\frac{1}{2}$ inch round and No. 1 M. T. shanks. The ratchet of the boxed type is operated by a ring shift. The handle is equipped with patented "oilite" bronze bearings. The head also runs on an "oilite" bearing and has a full ball thrust bearing as well.

The head and handle are made of glossy, transparent red Permaloid, an indestructible plastic. All exposed metal parts are highly polished and finished in brilliant chromium plate.

	Sweep	Weight	Code	Price Each
No. 5010	10 inches	3 $\frac{3}{8}$ lbs.	ANABO	\$9.00
No. 5012	12 inches	3 $\frac{1}{2}$ lbs.	ANEET	9.30

Packed one in a special box.

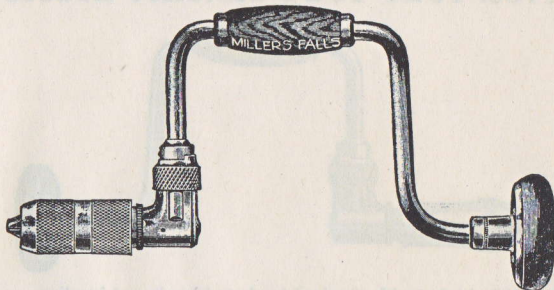
Nos. 769-773 Ratchet Braces



A sturdy, quality brace. Ball bearing at every possible point, every constructional detail refined and the entire tool beautifully finished. Equipped with Lion ball bearing chuck to hold regular square shanks, No. 1 Morse Taper and round shanks from $\frac{1}{8}$ to $\frac{1}{2}$ inch in diameter. Boxed ratchet with ring shift. Full steel clad, ball bearing head. Head and handle finely finished tropical hardwood. Handle has metal inserted rings. All exposed metal parts heavily nicked and highly buffed.

	Sweep	Weight	Code	Price Each
No. 769	16 inches	4 $\frac{1}{2}$ lbs.	ABACK	\$7.10
No. 770	14 inches	4 lbs.	ABACU	6.70
No. 771	12 inches	3 $\frac{1}{2}$ lbs.	ABAFI	6.60
No. 772	10 inches	3 $\frac{3}{8}$ lbs.	ABAND	6.40
No. 773	8 inches	3 lbs.	ABASK	6.40

Nos. 730-733 Ratchet Braces



A fine quality brace, popularly known for years as the "Holdall," having been one of the first to be equipped with the universal type or "Master" chuck holding square, No. 1 Morse Taper and plain round shanks from $\frac{1}{8}$ to $\frac{1}{2}$ inch in diameter.

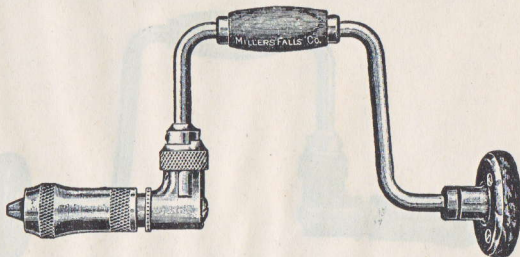
Boxed ratchet mechanism with ring shift. Steel clad, ball bearing head. Handle has inserted metal rings. Head and handle of finely finished tropical hardwood.

All exposed metal parts nicely polished, nickel plated and buffed.

	Sweep	Weight	Code	Price Each
No. 730	14 inches	3½ lbs.	ABBEY	\$5.90
No. 731	12 inches	3¼ lbs.	ABBOT	5.70
No. 732	10 inches	3¼ lbs.	ABDIC	5.50
No. 733	8 inches	2¾ lbs.	ABDOK	5.50

Packed two in a box.

Nos. 30-34 Ratchet Braces



This brace meeting every boring requirement for square shank bits represents a fine value and has probably enjoyed the greatest sale of any quality brace ever produced.

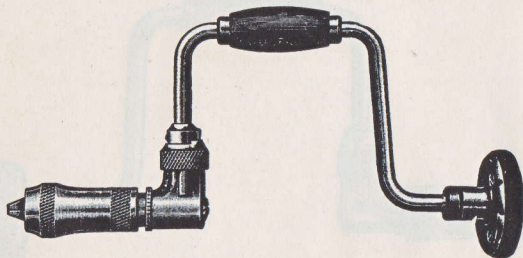
Equipped with Barber chuck with self-opening, forged steel alligator jaws. Steel clad, ball bearing head. Handle has inserted metal rings. Boxed ratchet with ring shift. Head and handle finely finished tropical hardwood.

All exposed metal parts nicely polished, nickel plated and buffed.

	Sweep	Weight	Code	Price Each
No. 30	14 inches	3¾ lbs.	ABSCO	\$5.70
No. 31	12 inches	3 lbs.	ABSEN	5.50
No. 32	10 inches	2¾ lbs.	ABSOL	5.30
No. 33	8 inches	2½ lbs.	ABSIK	5.30
No. 34	6 inches	2¼ lbs.	ABSTA	5.30

Packed two in a box.

Nos. 1321-1324 Ratchet Braces



Similar to Nos. 30 to 34, but with ebonized hardwood heads and handles.

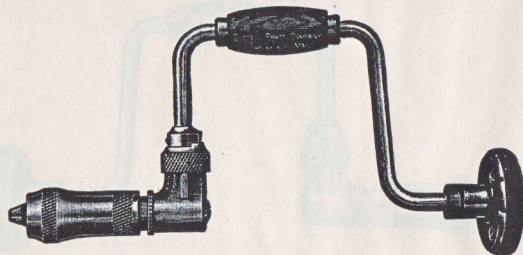
Boxed ratchet mechanism, with ring shift. Barber chuck with self-opening, forged steel alligator jaws. Ball bearing, steel clad head. Handle has inserted metal rings.

All exposed metal parts polished, nickel plated and buffed.

	Sweep	Weight	Code	Price Each
No. 1321	12 inches	3 lbs.	ACRIM	\$4.60
No. 1322	10 inches	2¾ lbs.	ACROB	4.40
No. 1323	8 inches	2½ lbs.	ACTIV	4.40
No. 1324	6 inches	2¼ lbs.	ACTOR	4.40

Packed two in a box.

Nos. 7006-7014 Ratchet Braces



The most popular of the Goodell-Pratt line of braces. A well constructed tool capable of delivering years of satisfactory service. Now supplied with ball bearing head.

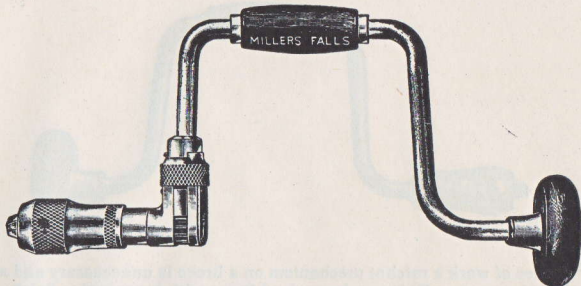
All-steel chuck with self-opening, forged steel alligator jaws. Boxed ratchet with ring shift. Ball bearing, steel clad head. Handle has inserted metal rings. Head and handle mahogany finished hardwood.

All exposed steel parts polished, nickel plated and buffed.

	Sweep	Weight	Code	Price Each
No. 7006	6 inches	2½ lbs.	ZORZA	\$4.40
No. 7008	8 inches	2¾ lbs.	ZORZY	4.40
No. 7010	10 inches	2¾ lbs.	ZOSAT	4.40
No. 7012	12 inches	2¾ lbs.	ZOSEV	4.60
No. 7014	14 inches	3 lbs.	ZOSOY	4.60

Packed two in a box.

Nos. 421-423 Ratchet Braces



An inexpensive brace of good design and sturdy construction but without some of the refinements in the higher priced tools.

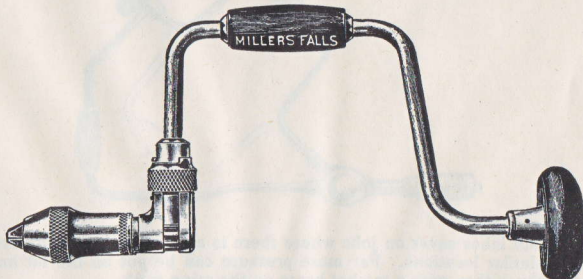
Barber chuck with improved malleable alligator jaws. Semi-boxed ratchet with ring shift. Ball bearing head. Handle with inserted metal rings. Head and handle mahogany finished hardwood.

Exposed metal parts polished and nickel plated.

	Sweep	Weight	Code	Price Each
No. 421	12 inches	2¾ lbs.	ADJEC	\$3.70
No. 422	10 inches	2½ lbs.	ADJOU	3.50
No. 423	8 inches	2¾ lbs.	ADJUN	3.50

Packed two in a box.

Nos. 1661-1663 Ratchet Braces

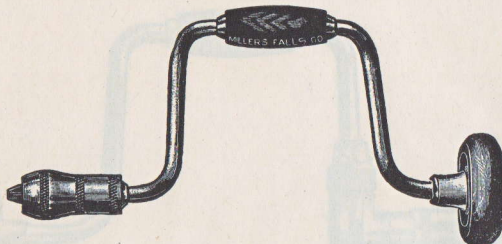


A low-priced brace of popular design that enjoys a tremendous sale. Good substantial construction throughout insures years of useful service. Barber chuck with improved malleable alligator jaws. Semi-boxed ratchet with ring shift. Ball bearing head. Head and handle mahogany finished hardwood. Handle has inserted metal rings. Exposed metal parts polished and nickel plated.

	Sweep	Weight	Code	Price Each
No. 1661	12 inches	2¾ lbs.	ADVER	\$2.90
No. 1662	10 inches	2¼ lbs.	ADVOC	2.60
No. 1663	8 inches	2 lbs.	AEOLI	2.60

Packed six in a box.

Nos. 142 and 143 Plain Braces

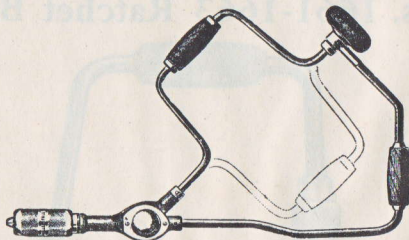


On many classes of work a ratchet mechanism on a brace is unnecessary and a plain or sleeve brace fills the requirements. This is a low-priced brace with inexpensive finish. Barber chuck with alligator jaws. Head has a ball bearing and is screwed securely to the quill. Head and handle mahogany stained hardwood. Exposed metal parts polished.

	Sweep	Weight	Code	Price Each
No. 142	10 inches	1¾ lbs.	AFILI	\$1.20
No. 143	8 inches	1½ lbs.	AFINO	1.20

Packed six in a box.

No. 502 Corner Braces



A great time and labor saver on jobs where there is a lot of boring in corners against walls and beams and similar locations. Far more pressure can be put on the bit and more power delivered to the chuck than with a ratchet brace on the same work.

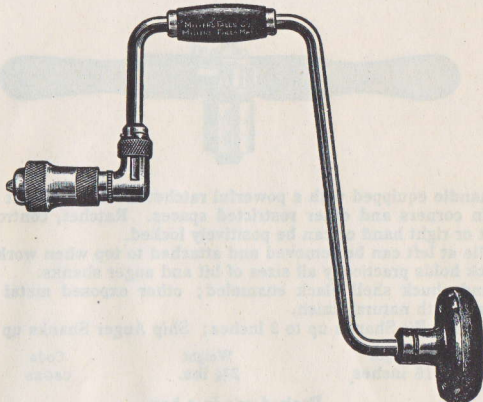
Master chuck holds square, No. 1 Morse Taper and round shanks from ¼ to ½ inch in diameter. Machine-cut, case-hardened steel gears, fully enclosed. Ball thrust bearing at base of chuck. Ball bearing head. Handles have inserted metal rings. Frame black enameled. Head and handles mahogany finished hardwood. Length, 17 inches.

All exposed metal parts, except frame, polished, nickel plated and buffed.

	Sweep	Weight	Code	Price Each
No. 502	10 inches	4 lbs.	AGAPE	\$10.00

Packed two in a box.

No. 7312 Whimble Brace



A double leverage brace for extra heavy work as encountered in ship, dock, car and bridge building and other heavy construction.

Equipped with Lion ball bearing chuck holding square, No. 1 Morse Taper and round shanks from $\frac{1}{8}$ to $\frac{1}{2}$ inch in diameter.

Heavy $\frac{9}{16}$ -inch sweep rod. Boxed ratchet with ring shift. Ball bearing, steel clad head. Handle has inserted metal rings. Head and handle mahogany finished hardwood.

Exposed metal parts nicely polished, nickel plated and buffed.

No. 7312	Sweep 12 inches	Weight $3\frac{3}{4}$ lbs.	Code ASTUT	Price Each \$6.50
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Packed two in a box.

No. 108 Angular Bit Stock



This tool used with a bit brace or breast drill makes it possible to drill holes at angles ranging from 180 to 125 degrees.

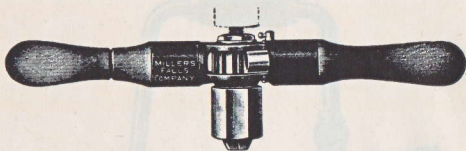
Equipped with Master chuck holding square, No. 1 Morse Taper and round shanks from $\frac{1}{8}$ to $\frac{1}{2}$ inch in diameter. Steel joints and pins. Hardened steel shank. Frame castings black enameled.

All exposed metal parts polished.

No. 108	Length $12\frac{1}{2}$ inches	Weight 2 lbs.	Code ACABA	Price Each \$3.85
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Packed one in a box.

No. 4 Ratchet Auger Handle



A heavy duty handle equipped with a powerful ratchet mechanism that makes it particularly effective for use in corners and other restricted spaces. Ratchet, controlled by small lever, operates either left or right hand or can be positively locked.

Steadying handle at left can be removed and attached to top when working conditions make it desirable. Chuck holds practically all sizes of bit and auger shanks.

Metal frame and chuck shell black enameled; other exposed metal parts nickel plated. Handles selected ash with natural finish.

Capacity—Regular Bit Shanks up to 2 inches; Ship Auger Shanks up to 1 $\frac{5}{16}$ inches.

No. 4	Length 15 inches	Weight 2 $\frac{3}{4}$ lbs.	Code CAGES	Price Each \$4.80
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Packed one in a box.

No. 3 Auger Handle



A light handle built on a strong malleable iron frame. All ordinary sizes of bit and auger shanks held securely by tightening the heavy wing nut. Handles selected ash. Frame black enameled. Wing nut rust-proofed.

Capacity—Regular Bit Shanks up to 2 inches; Ship Auger Shanks up to 1 $\frac{1}{4}$ inches.

No. 3	Length 16 inches	Weight 1 $\frac{1}{4}$ lbs.	Code CAGIL	Price Each \$1.60
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Packed three in a box.

No. 2 Auger Handle



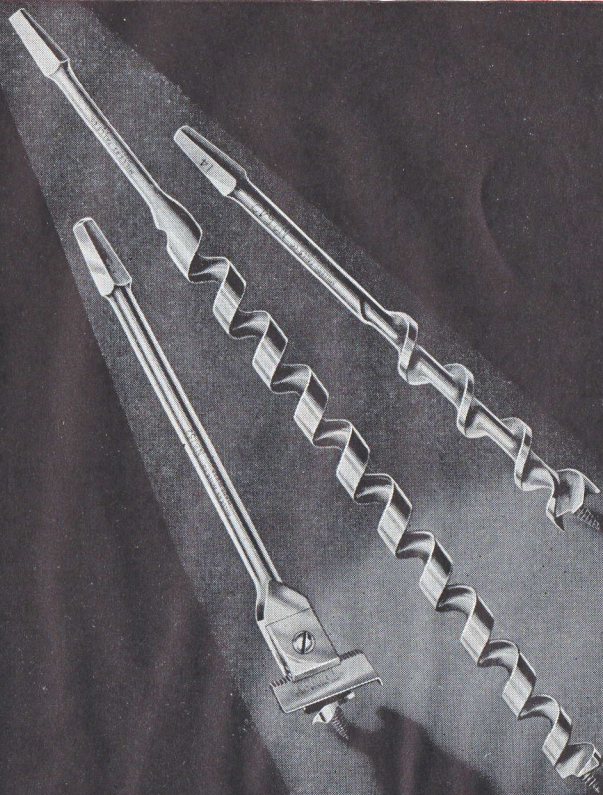
A stout wood handle holding all sizes of bits and all but the largest sizes of ship auger shanks. Augers are held by two 3-inch steel clamps tightened by means of two wing nuts. Handles straight grained, selected ash.

Capacity—Regular Bit Shanks up to 2 inches; Ship Auger Shanks up to 2 inches.

No. 2	Length 17 inches	Weight 1 $\frac{1}{4}$ lbs.	Code CAGNE	Price Each \$1.20
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Packed six in a box.

AUGER BITS



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

No. 2542 Auger Bit Sets



These rolls provide by far the best method of keeping a set of auger bits together, of protecting their cutting edges and keeping their fine finish. They are flexible, compact, easy to carry and can be packed away in a small space.

Made of heavy, waterproof Fabricoid with tape-bound edges and a jacket for each individual bit with the size clearly marked on it. Can be securely closed by means of the canvas strap.

Specify No. 2542 and number of quarters wanted for No. 542 Solid Center Sets. For example: No. 2542—32½ quarters designates a set of 32½ quarters of Auger Bit No. 542.

Code—BASFY

Quarters	Assortment by Sixteenths of an Inch	Price No. 2542
32½	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16, one each	\$8.05
25½	4, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 16, one each	6.65
24	4, 5, 7, 9, 11 and 12 one each and 6, 8 and 10, two each	6.45
22½	5, 7, 9, 10, 11, and 12 one each and 4, 6, and 8, two each	6.30
21	5, 6, 7, 9, 10, 11, and 12 one each and 4 and 8, two each	5.95
20½	4, 5, 6, 7, 8, 10, 12, 14, and 16, one each	5.25
18¾	4, 5, 6, 8, 10, 12, 14, and 16, one each	4.70
18	4, 5, 6, 7, 8, 9, 10, 11, and 12, one each	4.85
17½	4, 6, 8, 10, 12, 14, and 16, one each	4.35
15¾	4, 5, 6, 8, 10, 12, and 16, one each	4.00
14	4, 6, 8, 10, 12, and 16, one each	3.50
11¾	4, 5, 6, 8, 10, and 12, one each	3.10

Canvas rolls only (without bits) for 32½ quarters (13 bits) each, \$1.30.

No. 542 Solid Center Auger Bit



Made in Both English and Metric Sizes

The most popular type of Auger Bit for general all-round use, distinguished by a solid stem or core running the entire length of the twist, making a very rigid, powerful tool throughout and putting plenty of strength in the head where it is needed most. The head has two extension lips and spurs and two cutting edges. The deep, clean thread on the screw is pitched to pull the bit through hard or soft wood and make a smooth, straight hole. Sizes below are in sixteenths of an inch.

Beautifully finished with a high polish. Length of twist, 4 inches to 5½ inches; length overall, 7½ inches to 9½ inches.

No.	Size	Approx. Wt. Dozen	Price per Dozen	No.	Size	Approx. Wt. Dozen	Price per Dozen
3	3/16 inch	1 lb.	\$4.50	14	7/8 inch	4 lbs.	\$8.00
4	1/4 inch	1 lb.	4.00	15	15/16 inch	5 lbs.	9.00
5	5/16 inch	1 lb.	4.00	16	1 inch	6 lbs.	9.00
6	3/8 inch	1 lb.	4.00	17	1 1/16 inches	6 lbs.	10.50
7	7/16 inch	2 lbs.	4.50	18	1 1/8 inches	6 lbs.	10.50
8	1/2 inch	2 lbs.	5.00	19	1 3/16 inches	7 lbs.	12.00
9	9/16 inch	2 lbs.	5.50	20	1 1/4 inches	8 lbs.	12.00
10	5/8 inch	3 lbs.	6.00	21	1 5/16 inches	8 lbs.	13.50
11	11/16 inch	3 lbs.	7.00	22	1 3/8 inches	9 lbs.	13.50
12	3/4 inch	4 lbs.	7.00	23	1 7/16 inches	9 lbs.	15.00
13	13/16 inch	4 lbs.	8.00	24	1 1/2 inches	10 lbs.	15.00

Code—BASCO

Packed six in a box.

No. 520 Electricians' Bit



✓
NEW

Specially designed for electricians, telephone workers, linemen, plumbers and gasfitters for boring through stringers, sills, and floors. They cut fast and clear chips freely.

They are of the solid center type with a head fitted with a single rugged cutting lip, a keen stout spur and a deep, clean screw.

High polished finish. Machined shanks. Length of twist, 6 inches; length overall, 10 inches.

No.	Size	Approx. Wt. Dozen	Price per Dozen
10	5/8 inch	3¼ lbs.	\$9.00
11	11/16 inch	3½ lbs.	9.00
12	¾ inch	4¼ lbs.	9.00

Code—BALAB

Packed six in a box.

No. 935 Ship Auger Bits



Recommended particularly for hard tropical woods. A special heat-treatment is given to make these bits stand up on this severe service. Screw point has a deep, clean thread with moderately coarse feed. Well adapted for boring cross or end grain domestic hardwoods. It is easily resharpened. Nicely polished. Length of twist, 4 inches to 5½ inches; length overall, 7½ inches to 9½ inches.

No.	Size	Approx. Wt. Dozen	Price per Dozen	No.	Size	Approx. Wt. Dozen	Price per Dozen
4	¼ inch	1 lb.	\$4.00	13	1⅜ inch	4 lbs.	\$8.00
5	⅜ inch	1 lb.	4.00	14	⅞ inch	4 lbs.	8.00
6	¾ inch	1 lb.	4.00	15	1⅝ inch	5 lbs.	9.00
7	7/16 inch	1 lb.	4.50	16	1 inch	6 lbs.	9.00
8	½ inch	2 lbs.	5.00	18	1 ⅛ inches	6 lbs.	10.50
9	9/16 inch	2 lbs.	5.50	20	1 ¼ inches	8 lbs.	12.00
10	⅝ inch	3 lbs.	6.00	22	1 ⅜ inches	9 lbs.	13.50
11	11/16 inch	3 lbs.	7.00	24	1 ½ inches	10 lbs.	15.00
12	¾ inch	4 lbs.	7.00				

Code—BAUST

Packed six in a box.

No. 552 Solid Center Car Bit



This bit is the same as the No. 542 Solid Center Bits, but much longer. Length of twist, 12 inches; length overall, 18 inches. Sizes listed below in sixteenths of an inch.

High polished finish.

No.	Size	Approx. Wt. Dozen	Price per Dozen	No.	Size	Approx. Wt. Dozen	Price per Dozen
4	¼ inch	2¼ lbs.	\$9.00	15	1⅝ inch	8 lbs.	\$20.50
5	⅜ inch	2½ lbs.	9.00	16	1 inch	9½ lbs.	22.00
6	¾ inch	3 lbs.	9.00	17	1 ⅛ inches	12 lbs.	26.00
7	7/16 inch	3½ lbs.	10.00	18	1 ⅜ inches	14 lbs.	26.00
8	½ inch	4½ lbs.	11.25	19	1 ⅝ inches	14½ lbs.	30.00
9	9/16 inch	4¾ lbs.	12.50	20	1 ¾ inches	15 lbs.	30.00
10	⅝ inch	5¼ lbs.	13.75	21	1 ⅞ inches	15½ lbs.	34.00
11	11/16 inch	6½ lbs.	15.00	22	1 ¾ inches	18 lbs.	34.00
12	¾ inch	7 lbs.	16.25	23	1 7/16 inches	18 lbs.	38.00
13	13/16 inch	8 lbs.	17.50	24	1 ½ inches	19 lbs.	38.00
14	7/8 inch	8 lbs.	19.00				

Code—BARBA

Packed six in a box up to and including No. 16. Larger sizes three in a box.

No. 922 Ship Auger Car Bits



A long, single twist bit without spur which is specially efficient for boring in rough timbers and woods with a firm grain. Cuts easily and freely to the full depth of the twist. Length of twist, 12 inches; overall length, 18 inches.

High all-over polished finish on sizes up to and including No. 16. Larger sizes have black hollows.

No.	Size	Approx. Wt. Dozen	Price per Dozen	No.	Size	Approx. Wt. Dozen	Price per Dozen
4	1/4 inch	2 lbs.	\$11.00	15	1 5/16 inch	13 1/2 lbs.	\$14.50
5	5/16 inch	3 lbs.	11.00	16	1 inch	16 lbs.	14.50
6	3/8 inch	3 lbs.	11.00	17	1 1/16 inches	21 lbs.	16.00
7	7/16 inch	4 1/4 lbs.	11.00	18	1 1/8 inches	22 lbs.	16.00
8	1/2 inch	6 lbs.	11.00	19	1 3/16 inches	25 lbs.	18.00
9	9/16 inch	6 lbs.	11.00	20	1 1/4 inches	28 lbs.	18.00
10	5/8 inch	7 1/2 lbs.	11.00	21	1 5/16 inches	30 lbs.	20.00
11	11/16 inch	8 1/2 lbs.	12.00	22	1 3/8 inches	30 lbs.	20.00
12	3/4 inch	10 lbs.	12.00	23	1 7/16 inches	34 lbs.	23.00
13	13/16 inch	11 1/2 lbs.	13.00	24	1 1/2 inches	36 lbs.	23.00
14	7/8 inch	12 1/2 lbs.	13.00				

Code—BARET

Packed six in a box up to and including No. 16. Larger sizes three in a box.

No. 912 Ship Augers



Same pattern as No. 922, but with heavy square shank designed for use in an auger handle or a metal crank or handle welded to the shank.

Sizes Nos. 4 and 5 have an 8-inch twist and are 13 inches overall; sizes Nos. 6 to 8 a 10-inch twist and are 14 inches overall; sizes Nos. 9 to 16 a 12-inch twist and are 18 inches overall and sizes No. 17 up a 15-inch twist and 20 inches overall.

No.	Size	Approx. Wt. Dozen	Price per Dozen	No.	Size	Approx. Wt. Dozen	Price per Dozen
4	1/4 inch	2 lbs.	\$11.00	19	1 3/16 inches	27 lbs.	\$18.00
5	5/16 inch	2 lbs.	11.00	20	1 1/4 inches	29 lbs.	18.00
6	3/8 inch	2 1/2 lbs.	11.00	21	1 5/16 inches	36 lbs.	20.00
7	7/16 inch	3 1/2 lbs.	11.00	22	1 3/8 inches	38 lbs.	20.00
8	1/2 inch	5 1/2 lbs.	11.00	23	1 7/16 inches	38 lbs.	23.00
9	9/16 inch	6 3/4 lbs.	11.00	24	1 1/2 inches	39 lbs.	23.00
10	5/8 inch	8 lbs.	11.00	25	1 9/16 inches	39 lbs.	27.00
11	11/16 inch	9 lbs.	12.00	26	1 5/8 inches	41 lbs.	27.00
12	3/4 inch	10 1/2 lbs.	12.00	27	1 11/16 inches	44 lbs.	32.00
13	13/16 inch	12 lbs.	13.00	28	1 3/4 inches	45 lbs.	32.00
14	7/8 inch	12 1/2 lbs.	13.00	29	1 13/16 inches	46 lbs.	38.00
15	15/16 inch	13 lbs.	14.50	30	1 7/8 inches	48 lbs.	38.00
16	1 inch	17 1/2 lbs.	14.50	31	1 15/16 inches	50 lbs.	45.00
17	1 1/16 inches	19 lbs.	16.00	32	2 inches	52 lbs.	45.00
18	1 1/8 inches	24 lbs.	16.00				

Code—BARGE

Packed six in a box up to and including No. 16; sizes 17 to 30 inclusive, three in a box; and sizes 31 and 32 wrapped singly in heavy paper.



No. 812 Ship Augers



Same as No. 912 Series, but without screw point. Recommended where particularly straight boring is required because it will not drift off with the grain of the wood. Lengths same as No. 912.

Full polished twists and rounds up to and including No. 16. Larger sizes have black hollows.

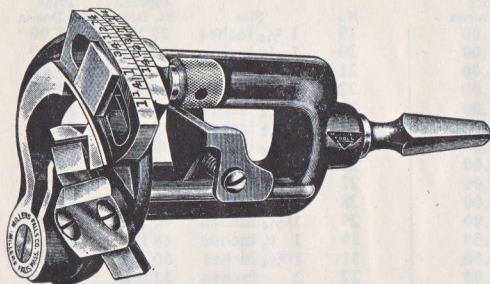
No.	Size	Approx. Wt. Dozen	Price per Dozen
4	1/4 inch	2 lbs.	\$13.20
5	5/16 inch	2 lbs.	13.20
6	3/8 inch	2 1/2 lbs.	13.20
7	7/16 inch	3 1/2 lbs.	13.20
8	1/2 inch	5 1/2 lbs.	13.20
9	9/16 inch	6 1/2 lbs.	13.20
10	5/8 inch	8 lbs.	13.20
11	11/16 inch	9 lbs.	14.40
12	3/4 inch	10 1/2 lbs.	14.40
13	13/16 inch	12 lbs.	15.60
14	7/8 inch	12 1/2 lbs.	15.60
15	15/16 inch	13 lbs.	17.40
16	1 inch	17 1/2 lbs.	17.40
17	1 1/16 inches	19 lbs.	19.20
18	1 1/8 inches	24 lbs.	19.20

No.	Size	Approx. Wt. Dozen	Price per Dozen
19	1 3/16 inches	27 lbs.	\$21.60
20	1 1/4 inches	29 lbs.	21.60
21	1 5/16 inches	36 lbs.	24.00
22	1 3/8 inches	38 lbs.	24.00
23	1 7/16 inches	38 lbs.	27.60
24	1 1/2 inches	39 lbs.	27.60
25	1 9/16 inches	39 lbs.	32.40
26	1 5/8 inches	41 lbs.	32.40
27	1 11/16 inches	44 lbs.	38.40
28	1 3/4 inches	45 lbs.	38.40
29	1 13/16 inches	46 lbs.	45.60
30	1 7/8 inches	48 lbs.	45.60
31	1 15/16 inches	50 lbs.	54.00
32	2 inches	52 lbs.	54.00

Code—BARON

Packed six in a box up to and including No. 16; sizes 17 to 30 three in a box, and sizes 31 and 32 wrapped singly in heavy paper.

No. 3 Hollow Auger



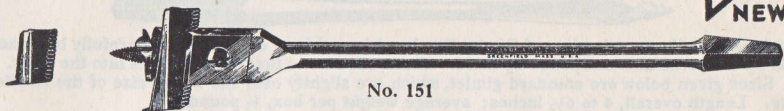
Adjustable to cut tenons from 1/4 to 1 1/4 inches. Graduated index. Stop gauge to regulate length. Knife carefully tempered and sharpened. Steel adjusting screw. Head castings of malleable iron. Frame enameled black and red. Bright parts polished.

Furnished with 1/2-inch round shank, if desired, without extra charge.

No. 3	Capacity 1/4 to 1 1/4 inches	Weight 3/4 lb.	Code SAYND	Price Each \$7.70
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Packed one in a box.

Screw Adjusting Expansive Bits



No. 151

A finely made and finished bit with a positive screw adjustment of cutter which absolutely prevents shifting even in the toughest woods. The cross feed screw meshes with the cutter and also the plate. One complete turn of screw increases diameter of hole $\frac{1}{8}$ inch.

The deep, clean cut screw, sharp spurs and cutting edges make it an extremely easy boring bit. Two cutters. Beautifully finished and packed in a Fabricoid case.

	Capacity	Code	Price Each
No. 151	$\frac{5}{8}$ inch to $1\frac{1}{4}$ inches	BONOR	\$1.85
No. 152	$\frac{7}{8}$ inch to 3 inches	BOMIT	2.20

Packed one in a box.

Extra Cutters for Nos. 151 and 152

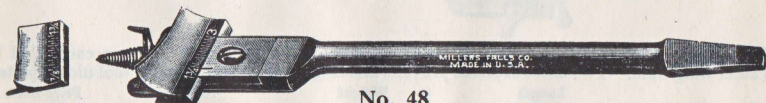
	Capacity	Price per Dozen
No. 1	$\frac{5}{8}$ inch to $1\frac{1}{8}$ inches	\$3.00
No. 2	$1\frac{1}{8}$ inches to $1\frac{3}{4}$ inches	3.75
No. 3	$\frac{7}{8}$ inch to $1\frac{3}{4}$ inches	5.25
No. 4	$1\frac{3}{4}$ inches to 3 inches	6.00

Extra Cutters for No. 152 only

	Capacity	Price per Dozen
No. 5	3 inches to 4 inches	\$9.00
No. 6	4 inches to 5 inches	12.00

Be sure to specify number of bit cutters are to fit.

Expansive Bits



No. 48

A finely made and beautifully finished bit of the Clark Pattern, with spurs, cutting edges, throats, screws and cutters designed to function in unison to give a fast, clean cutting bit. Made of the highest quality special bit steel throughout. Each bit equipped with two cutters.

All parts of the bit highly polished.

	Capacity	Weight	Code	Price Each
No. 47	$\frac{1}{2}$ to $1\frac{1}{2}$ inches	$\frac{3}{8}$ lb.	BARDO	\$1.50
No. 48	$\frac{7}{8}$ to 3 inches	$\frac{1}{2}$ lb.	BOLLO	2.20

Packed one in a box; six boxes in a carton.

Extra Cutters

	Fitting	Capacity	Price per Dozen
No. 1	No. 47	$\frac{1}{2}$ to $\frac{7}{8}$ inches	\$3.00
No. 2	No. 47	$\frac{7}{8}$ to $1\frac{1}{2}$ inches	3.75
No. 3	No. 48	$\frac{7}{8}$ to $1\frac{3}{4}$ inches	5.25
No. 4	No. 48	$1\frac{3}{4}$ to 3 inches	6.00

No. 444 Gimlet Bits



A very fine fast cutting line of Gimlet Bits hand forged from crucible steel, carefully hardened and oil tempered and sharpened by hand. Clean cut screws that draw the bits into the work.

Sizes given below are standard gimlet, which are slightly over the actual size of the smaller bits. Length overall, 4 to 6½ inches; average weight per box, ¾ pound.

Size	Code	Price per Dozen	Size	Code	Price per Dozen
1/32 inch	ZOUSA	\$1.90	8/32 inch	ZOUTE	\$1.90
2/32 inch	ZOUSE	1.90	9/32 inch	ZOUTO	1.90
3/32 inch	ZOUSM	1.90	10/32 inch	ZOUTS	1.90
4/32 inch	ZOUSO	1.90	11/32 inch	ZOUTY	1.90
5/32 inch	ZOUSS	1.90	12/32 inch	ZOUVO	1.90
6/32 inch	ZOUST	1.90	Asst. 4/32 to 8/32	ZOUVX	1.90
7/32 inch	ZOUTA	1.90	Asst. 1/32 to 12/32	ZOUWA	1.90

Packed twelve in a box.

No. 577 Gimlet Bit Set

This set consists of twelve No. 444 Gimlet Bits, sizes 1/32 inch to 12/32 inch, put up in a nicely finished, handy round wooden box where they are always readily available when wanted. A most useful set in a convenient, permanent container.

No. 577 Set Complete

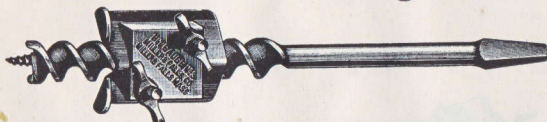
Weight
1½ lbs.

Code
YUMYA

Price per Set
\$2.75

Packed one in a box.

No. 36 Bit Gauge



Fits any type of auger bit clamping securely to the twist of the bit. Clamp controlled by two steel wing nuts. Two smooth shoes prevent marring of the work. Entire tool nickel plated.

No. 36

Length
2 inches

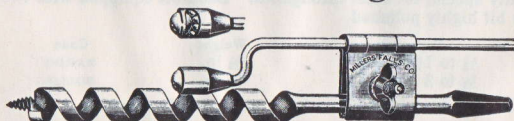
Weight
3 ozs.

Code
AWASA

Price Each
\$0.60

Packed six in a box.

No. 2 Bit Gauge



An attachment for boring any number of holes to a given depth. It clamps to the shank of any size auger bit and tightens on the bit and gauge spindle at the same time. Contact ball revolves on ball bearings, reducing the friction and preventing defacement of the surface of the material being bored. Entire tool nickel plated.

No. 2

Length
5¾ inches

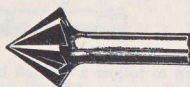
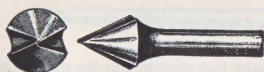
Weight
½ lb.

Code
APITI

Price Each
\$0.70

Packed six in a box.

Countersinks with Round Shanks



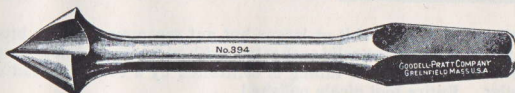
✓
NEW

Equipped with 1/4-inch round shanks for use in three-jawed chucks of hand and breast drills. The two-lipped pattern is for use in wood, brass, copper, bakelite, fibre, etc., while the rose pattern is for iron and steel. Carefully hardened, tempered and nicely finished.

	Extreme Diameter	Length	Weight Box	Code	Price per Dozen
No. 652 Two-Lipped	9/16 inch	1 3/4 inches	4 OZS.	ZAEGS	\$3.50
No. 399 Rose	1/2 inch	1 3/4 inches	4 OZS.	YOFYT	4.40

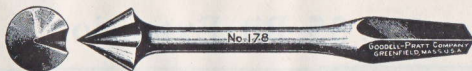
Forged Countersinks

An unusually fine line of countersinks, hammer forged from the very best quality of tool steel obtainable for this class of tool. Their hammer refined steel is correctly hardened and well polished, and then carefully tempered to a straw color to withstand the grueling work expected of them. The cutting edges are clean and sharp.



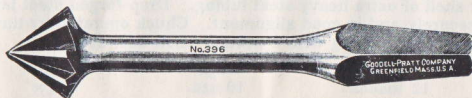
Two-lipped wood countersinks with square bit brace shanks.

	Extreme Diameter	Length	Weight	Code	Price per Dozen
No. 177	1/2 inch	4 1/4 inches	1 lb.	YEITS	\$5.50
No. 394	3/4 inch	4 1/4 inches	1 3/4 lbs.	YOFEM	6.10



Single-lipped metal countersinks with square bit brace shanks.

	Extreme Diameter	Length	Weight	Code	Price per Dozen
No. 178	1/2 inch	4 1/4 inches	7/8 lb.	YEIZY	\$5.50



Rose countersinks for metals with bit brace shanks.

	Extreme Diameter	Length	Weight	Code	Price per Dozen
No. 396	3/4 inch	4 1/4 inches	1 1/2 lbs.	YOFME	\$5.50
No. 691	1 1/4 inches	4 1/4 inches	3 lbs.	ZAMUD	8.80

Packed six in a box.

No. 5 Bit Extension



Designed to follow a $\frac{3}{8}$ -inch bit or larger into its bore but should not be used with bits over $\frac{1}{2}$ inch in diameter. The chuck is made of special tool steel heat treated for extreme toughness. The steel jaws are spring tempered and hold the bit securely. The steel socket is screwed and pinned to the rod or shank. The knurled nut controlling the chuck action is extra long to give a good grip. Entire tool well polished.

	Length	Weight	Code	Price Each
No. 5	12 inches	$\frac{2}{3}$ lb.	CAMPO	\$2.35
No. 5	15 inches	$\frac{5}{8}$ lb.	CANAL	2.35
No. 5	18 inches	$\frac{3}{4}$ lb.	CANOR	2.35
No. 5	21 inches	$\frac{7}{8}$ lb.	CANDI	2.40
No. 5	24 inches	1 lb.	CANEY	2.55
No. 5	30 inches	1 $\frac{1}{4}$ lbs.	CANON	2.65

No. 11 Bit Extension



Designed to follow an $\frac{1}{2}$ -inch bit or larger but not recommended for bits larger than $\frac{1}{2}$ inch. A neat, strong extension of the solid socket type with socket forced on to the shank and pinned. Chuck shell made of heavy seamless tubing is controlled by a coarse thread operated by turning the knurled collar. Entire tool nicely polished.

	Length	Weight	Code	Price Each
No. 11	15 inches	$\frac{3}{4}$ lb.	CAMBE	\$2.40
No. 11	18 inches	1 lb.	CAMEL	2.40
No. 11	21 inches	1 $\frac{1}{8}$ lbs.	CAMFO	2.50
No. 11	24 inches	1 $\frac{1}{4}$ lbs.	CAMIS	2.60

No. 35 Bit Extension

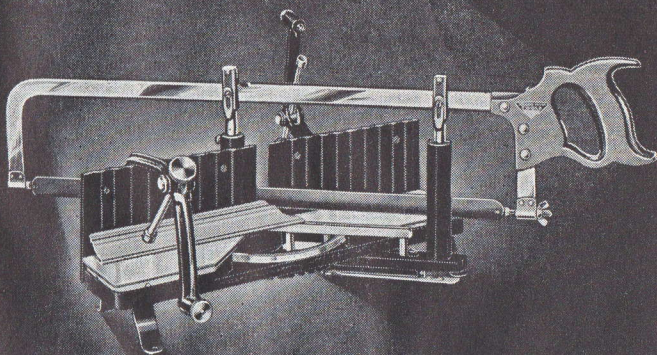


Designed to follow an $\frac{1}{2}$ -inch bit or larger but not recommended for continuous use on bits larger than $\frac{1}{2}$ inch. The one-piece socket and shank construction of this extension makes it very strong. Chuck shell of extra heavy steel tubing. Drop-forged steel jaws positively seated in socket hold bits securely and in good alignment. Chuck operated by turning knurled collar. Upper hexagon portion for tightening with a wrench when desirable.

	Length	Weight	Code	Price Each
No. 35	12 inches	10 ozs.	CABIN	\$2.40
No. 35	15 inches	11 ozs.	CABOS	2.40
No. 35	18 inches	13 ozs.	CABIO	2.40
No. 35	21 inches	14 ozs.	CACKO	2.50
No. 35	24 inches	16 ozs.	CADDY	2.60
No. 35	30 inches	18 ozs.	CADEN	2.70

Packed one in a box.

MITRE BOXES

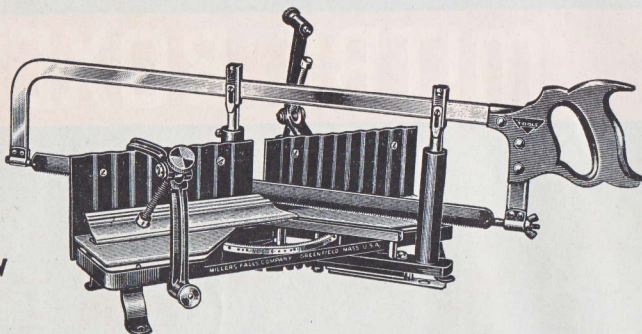


**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLER'S FALLS
TOOLS**

SINCE
1868

Metal Cutting Mitre Boxes



✓
NEW

The tremendous activity in the modernization of store fronts and the extensive use of aluminum and alloy steel mouldings, awning covers and decorative metal strips and shapes in connection therewith has created an insistent demand for an accurate metal cutting mitre box that will handle efficiently the metal sawing problems involved.

With the exception of the clamp arms, which are malleable iron, this new Millers Falls box is made entirely of steel along the same tried and true lines of design and construction that have proved so satisfactory in our wood cutting boxes.

The ball bearing saw carriage swings freely, right or left, from 45 to 90 degrees. It locks automatically at the most used angles and can be locked at any intermediate angle by pulling the small knob at the side of the carriage. Angles are easily determined by using the graduated quadrant provided. The saw guides are extra long, as are the posts in which they run. The tops are removable so the saw frame can be inserted or removed easily. Automatic detents are provided to hold the saw in elevated position while work is being changed.

The saw frame is made of round edge steel 1 inch wide and $\frac{1}{4}$ inch thick to give ample rigidity and stand the necessary tension on the blade secured by tightening the wing nut provided.

The saw blade, which is 22 inches from center to center of holes, can be replaced without removing the frame from the box. It is 1 inch wide, .036 inch thick and has 32 teeth per inch, with a special set that produces a smooth cut.

The clamp arms are made of malleable iron and equipped with a quick adjustable steel screw that provides the pressure to hold the work in position. The pressure disc, swiveled on the end of the screw, is faced with a heavy leather pad that will not mar the finest finish. Clamps lock under front rail of bed and are adjustable lengthwise of the box. The clamps can also be tipped up over the back out of the way as illustrated at right or removed entirely by taking out two screws.

No. 2432 is equipped with a tungsten blade for use on ordinary work. No. 1937 is equipped with a Blu-Mol Molybdenum Blade for stainless steel.

Capacity at right angles 10 $\frac{1}{2}$ inches, at mitre 7 $\frac{1}{4}$ inches.

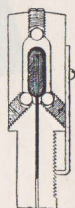
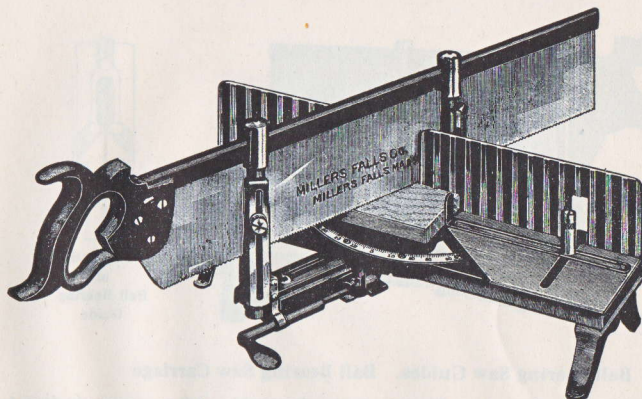
	Length Bed	Width Bed	Net Weight	Code	Price Each
No. 2432	19 $\frac{1}{2}$ inches	4 $\frac{1}{2}$ inches	25 lbs.	ZUKRE	\$33.00
No. 1937	19 $\frac{1}{2}$ inches	4 $\frac{1}{2}$ inches	25 lbs.	ZUKUV	34.00

Price per Dozen
Extra Tungsten Blades.....\$6.00

Price per Dozen
Extra Blu-Mol Blades.....\$18.00

Box, saw frame, clamps and one blade packed in a wooden case.

Langdon Acme Mitre Boxes



Cross Section
of
Ball Bearing
Guide

Ball Bearing Saw Guides. Ball Bearing Swinging Lever

The Langdon Acme box has been the outstanding mitre box for many years. Now to its many other fine features have been added: ball bearing saw guides, which practically eliminate the friction between the guides and saw back, and a full ball bearing lever, making it extremely easy to swing the saw from one angle to another. Greatly improved angle and length attachments (not illustrated) have also been added.

The thumb lever at the front locks or releases the saw supports so that they may be swung to any angle. A notched bed plate provides a positive lock at the most used angles. Lever can also be set at any intermediate angle. Easily read graduated arc and index plate shows points at which to set saw for certain cuts. Extension lever for quick acting adjustment on all sizes. Two spring locks in the guide posts hold the saw elevated when not in use.

Red enameled steel bottom plates roughened to prevent the work from slipping. Main castings nicely black enameled. Bright parts nickel plated.

Each box equipped with the highest grade 11 point back saw, tested out in the box with which it is shipped. While boxes without saws can be supplied, accuracy is guaranteed only when saws are fitted at the factory.

Capacity—All sizes—10½ inches at right angles, 7 inches at mitre.

Length of bed, 19¾ inches; width, 4½ inches.

Prices Complete with Saw

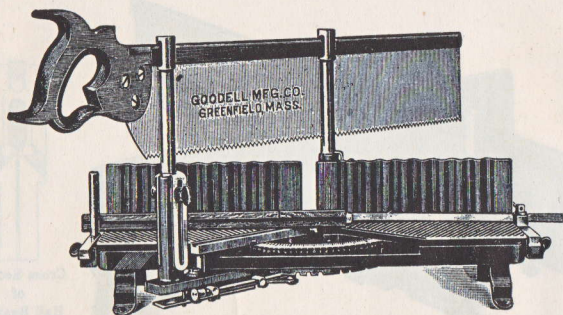
	Size Saw	Net Weight	Packed	Code	Price Each
No. 71A	22 x 4 inches	24 lbs.	37 lbs.	LACER	\$28.20
No. 72A	24 x 4 inches	25 lbs.	38 lbs.	LADDE	28.50
No. 73A	26 x 4 inches	25 lbs.	38 lbs.	LADIM	29.00
No. 74A	28 x 5 inches	26 lbs.	40 lbs.	LADLE	32.00
No. 75A	30 x 5 inches	26 lbs.	41 lbs.	LAGER	34.25

Prices without Saw

No. 1071A	For 4-inch Saw	21 lbs.	30 lbs.	LAIRD	\$21.00
No. 1074A	For 5-inch Saw	23 lbs.	32 lbs.	LAITY	22.55

Packed one in a wooden box.

All Steel Mitre Boxes

Cross Section
of
Ball Bearing
Guide

Ball Bearing Saw Guides. Ball Bearing Saw Carriage

Every single part made of steel, making the box unbreakable and consequently free from expense for replacements and repairs. Design and construction the finest throughout. Extreme accuracy of angular and vertical cuts and wonderful durability. Two separate scales on quadrant, one graduated in degrees and one in a new framing scale for cutting roof timbers, finish, etc.

Ball bearing saw carriage swings freely right or left from 45 to 90 degrees and locks automatically at the most used angles. Locked at any intermediate angle by pulling the small knob at the side of the saw carriage. Ball bearing steel saw guides permit extreme ease of operation. Adjustable gauges regulate depth of cut. Guides are extra long and very rigid. When not in use saw is held in elevated position by spring locks in the guide posts.

Length gauge and attachment for cutting angles more acute than 45 degrees. Solidly fixed to the ends of the steel frame. Bottom plates scored to keep work from slipping.

Highest quality back saws are supplied with these boxes, each box being thoroughly tested out, using the saw that is shipped with it. Boxes without saws can be furnished but cannot be guaranteed for accuracy.

Capacity—All sizes—10½ inches at right angles; 7¼ inches at mitre.
Length of bed, 19¾ inches; width, 4½ inches.

Prices Complete with Saw

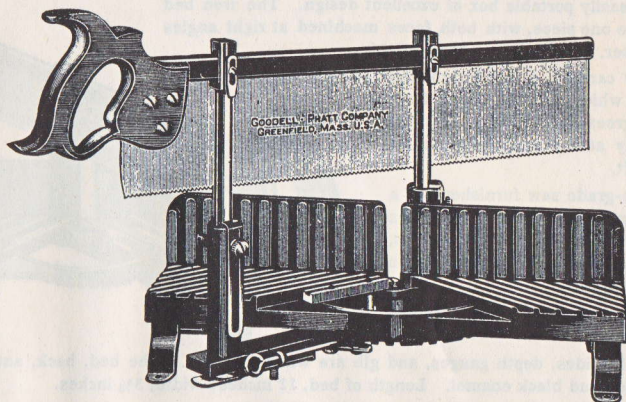
	Size Saw	Net Weight	Gross	Code	Price Each
No. 1244A	24 x 4 inches	22 lbs.	33 lbs.	ZITRE	\$28.50
No. 1264A	26 x 4 inches	22 lbs.	33 lbs.	ZITUV	29.00
No. 1285A	28 x 5 inches	23 lbs.	37 lbs.	ZITWY	32.00
No. 1305A	30 x 5 inches	23 lbs.	37 lbs.	ZIUGH	34.25
No. 1306A	30 x 6 inches	24 lbs.	39 lbs.	ZIUHJ	39.00

Prices without Saw

No. 1002A	For 4-inch Saw	18½ lbs.	26 lbs.	ZIRNA	\$20.60
No. 1003A	For 5-inch Saw	20 lbs.	27½ lbs.	ZIROR	22.60
No. 1004A	For 6-inch Saw	21½ lbs.	32 lbs.	ZIRPE	27.80

Packed one in a wooden box.

Nos. 1100 to 1124A Mitre Boxes



These all-metal boxes with many improved features so thoroughly cover the field of both the new Langdon Improved and new Langdon boxes that the latter have been discontinued.

A solid, well made box with bed and back cast in one solid piece with the two working faces machined at right angles to one another. Legs are securely fixed to the bed by heavy screws, making a fine rigid set up.

The swinging lever or saw carriage is very substantially constructed of steel and is hung to the bed by means of a heavy king-pin. It swings freely from 45 to 90 degrees right or left and locks automatically at all the most used angles. A compression lock controlled by the pull rod at the side locks it at all intermediate angles.

The high-grade saws furnished run in long steel saw guides. Two spring locks in the guide posts hold the saw elevated when not in use. A slight downward pressure releases it. Depth gauges are provided to regulate the depth of cut.

Frame, legs and swinging lever nicely finished in red and black enamel. Other exposed metal parts nicely polished or nicked.

Capacity—No. 1118—7½ inches at right angles, 5¾ inches at mitre.

Capacity—No. 1124A—10½ inches at right angles, 7¼ inches at mitre.

Prices Complete with Saw

	Size Saw	Net Weight	Packed	Code	Price Each
No. 1118	18 x 4 inches	19 lbs.	30 lbs.	ZUHNA	\$17.00
No. 1124A	24 x 4 inches	20 lbs.	31 lbs.	ZUHOR	21.40

Prices without Saw

No. 1100	For 18 x 4 inch Saw	16¾ lbs.	26 lbs.	ZUHEP	\$13.00
No. 1101	For 24 x 4 inch Saw	18 lbs.	26 lbs.	ZUHMO	13.70

Packed one in a wooden box.

No. 1625 Mitre Box

A light, easily portable box of excellent design. The iron bed and back are one piece, with both faces machined at right angles to one another. The legs are demountable.

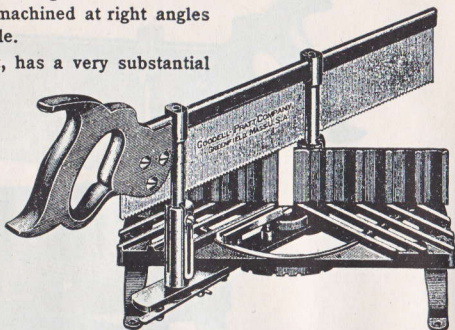
The saw carriage is steel throughout, has a very substantial pivot pin on which it swings freely from 45 to 90 degrees right or left. It locks automatically at the most used angles right and left.

The high-grade saw furnished has a blade $2\frac{1}{2}$ inches deep and 16 inches long and runs in long steel guides, assuring accuracy of the vertical cut as well as the angular.

Gauges are provided to regulate the depth of the cut.

The steel guides, depth gauges, and gib are white nickeled. The bed, back, and legs are finished in red and black enamel. Length of bed, 12 inches; width, $3\frac{3}{8}$ inches.

Capacity at right angles, $5\frac{1}{8}$ inches; at mitre, $3\frac{1}{2}$ inches.



No. 1625	Size Saw 16 x $2\frac{1}{2}$ inches	Net Weight 7 $\frac{1}{4}$ lbs.	Packed 14 lbs.	Code ZUJPA	Price Each \$14.00
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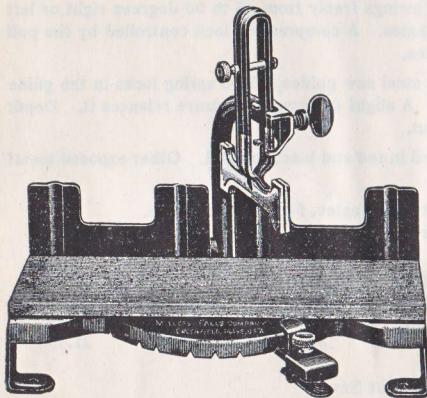
Packed one in a wooden box.

No. 110 Mitre Box

The open front type of box is built to meet the demand for a practical box at a low price. It is made entirely of steel with few parts and quick, easy adjustments. The frame and legs are one piece. The saw guide is adjustable for any size back or panel saw with device for squaring with bases and back. Swivel arm locks positively at most used angles and clamps rigidly for intermediate angles. A roll is provided to prevent the saw marring the bottom board. No saw furnished.

Frame black enameled, saw guides red. Nickel trimmings.

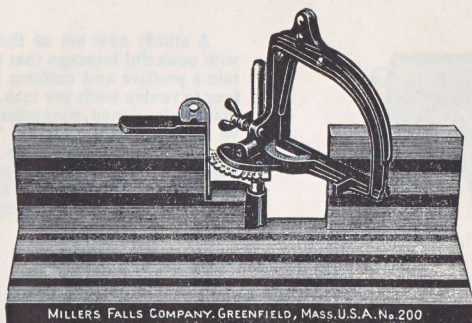
Length of bed, $14\frac{3}{4}$ inches; width, $4\frac{1}{4}$ inches.



No. 110	Net Weight 9 lbs.	Packed 16 lbs.	Code LESTA	Price Each \$8.20
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Packed one in a wooden box.

No. 200 Mitre Box



MILLERS FALLS COMPANY, GREENFIELD, MASS., U.S.A. No. 200

The frame of this box is made of laminated wood doweled for strength. The saw guide is designed so that either a back or panel saw may be used.

The saw guide is mounted on a steel post and can be adjusted freely for various angles and heights. It is provided with three screws for adjustment to the thickness of the saw blade used.

A steel index plate, indexed and clearly marked for the six commonly used angles, 0, 9, 22½, 30, 36 and 45 degrees, right or left, is fixed to the saw guide. To set the guide at any one of these angles the steel slide key in the frame of the box is lifted and the guide swung until the proper notch in the index plate is opposite the key. The key is then pushed down until it seats firmly in the notch.

Any intermediate angles can be obtained by using the thumb screw at the back of the saw guide. This thumb screw is also used for setting the guide at any desired height.

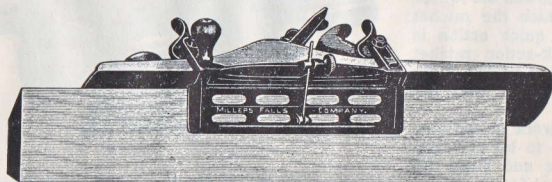
When a back saw is used exact depths can be sawed by raising the saw guide on its post to the proper height so that the shoulders provided prevent the saw going below the desired point.

No. 200	Bed Dimensions 16 x 5½ inches	Weight 6 lbs.	Code LITER	Price Each \$4.00
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Packed one in a wooden box.

No. 88 Jointer Gauge

For Iron or Wood Planes



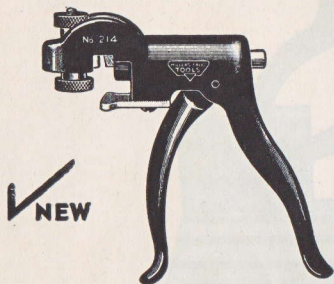
Easily and quickly attached to iron planes by means of the adjustable cams; to wood planes by ordinary wood screws. Can be used on either side of plane, for right or left hand work. Can be positively set at any desired angle.

Finished in black enamel. Flat bearing surface polished and nickel plated.

No. 88	Length 9 inches	Weight 2¼ lbs.	Code LITRA	Price Each \$2.90
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Packed one in a box.

No. 214 Saw Set



A sturdy new set of the pistol grip pattern with powerful leverage that makes it easy to obtain a positive and uniform set on any saw with four to twelve teeth per inch. Good visibility so that the hardened, triangular shaped plunger can be centered on the teeth. The hardened steel anvil is quickly adjustable for any pitch. An adjustable steel guide is provided. Lever malleable iron. All exposed steel parts cadmium plated. Frame black enameled.

No. 214	Weight 1½ lbs.	Code YEPR	Price Each \$2.00
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Packed one in a box.

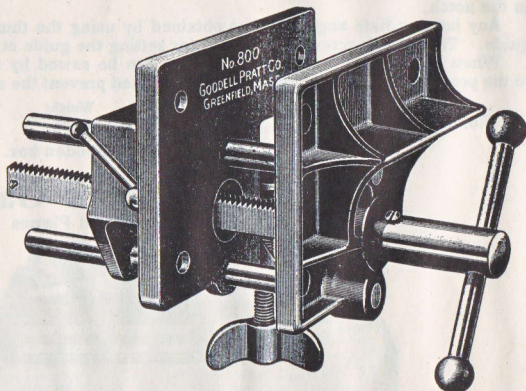
No. 800 Carpenters' Vise

This quick-acting carpenters' vise is built to clamp to the corner of any bench or table up to 1½ inches thick and its malleable iron jaws are designed for holding work, horizontally or vertically. Countersunk screw holes are provided so the jaws can be faced with wood if desired.

The movable jaw is carried on twin steel rods and the square steel rod in which the ratchet controlling the quick action is cut. The quick-action ratchet pawl is controlled by the lever just back of the fixed jaw at the left.

To tighten work in the vise place the piece to be held between the jaws and push the movable jaw in as far as possible and then tighten by giving a quarter or half turn on the clamp handle. To release, unscrew the clamp handle a quarter or half turn, then raise the quick action lever at the left and pull the movable jaw out.

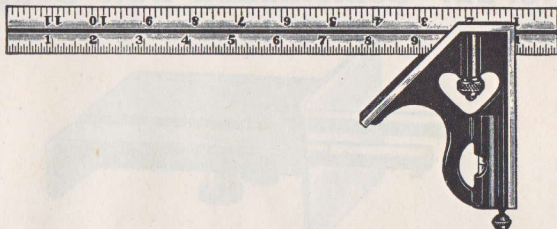
Jaw castings are finished in red and black enamel.



No. 800	Jaw Faces 5½ x 4 inches	Jaws Open 3½ inches	Length 8½ inches	Weight 5 lbs.	Code ZEGVA	Price Each \$3.40
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Packed one in a box.

Carpenters' Combination Squares



These are accurate, well-finished squares, made especially for the carpenter. They can be used as a try square, mitre square, depth gauge, marking gauge or as a level. They are made under the Mohawk-Shelburne brand.

The well-finished steel blades are 9 or 12 inches long and 1 inch wide, accurately graduated in 8ths and 16ths on one side and 16ths and 32nds on the other. The graduations and figures are clearly etched, not stamped.

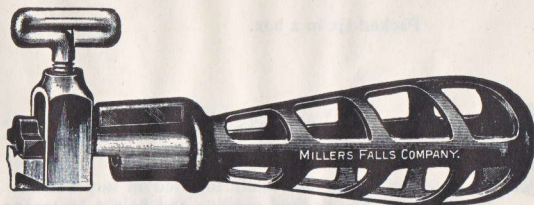
The beam has accurately milled working faces with polished edges and black enameled web. It has a cat's-eye level vial accurately set in the body, which can be used either as a level or a plumb. A sturdy, well-pointed scriber is also supplied.

The beam can be slipped along the scale and locked at any point by tightening the knurled thumb nut.

	Length Blade	Weight	Code	Price Each
No. 9500	9 inches	14 ozs.	ZOPER	\$1.15
No. 1200	12 inches	15 ozs.	ZISPA	1.20

Packed one in a box.

No. 448 File Handle

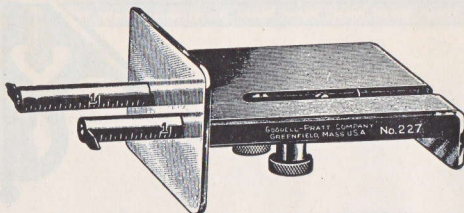


While this handle holds perfectly files with tangs of all sizes and shapes, and is primarily a file handle, yet it also holds a variety of shanks of different shapes and sizes which do not exceed $\frac{3}{4}$ inch square or flat. Malleable iron handle, black enameled. Screw and yoke white nickeled.

	Length	Weight	Code	Price Each
No. 448	5 $\frac{1}{4}$ inches	5 ozs.	SCAMP	\$0.35

Packed six in a box.

No. 227 Combination Butt Gauge



This tool is designed especially for door hanging and mortise work. It is provided with **three hardened double edge spurs**, the one on the back of the double end bar being adjustable for the regulation of clearance.

The tool is well made, entirely of steel, and is polished and nickel plated.

No. 227	Length 3½ inches	Weight 8 ozs.	Code YETRE	Price Each \$2.20
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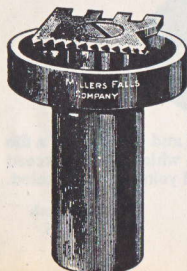
Packed one in a box.

Carpenters' Plumb Bobs

These plumb bobs are machine turned from cold rolled steel. The points are sharpened and hardened. Nicely polished, nickel plated and buffed. Hang true and insure positive accuracy in plumbing and leveling.

	Length	Weight	Code	Price Each
No. 1	2¾ inches	2½ ozs.	LLOYD	\$0.30
No. 2	3½ inches	5 ozs.	LOACH	.40
No. 3	4 inches	8 ozs.	LJVER	.60
No. 4	5 inches	12 ozs.	LOANY	.75

Packed six in a box.



No. 56 Bench Hook

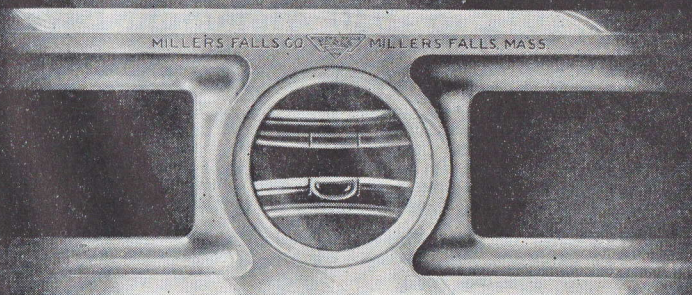
A strong, rigid tool easily inserted in any bench. Has four faces, adjustable to any desired position and height by means of set screw in center. Upper part of socket 2 inches and lower part 1 inch in diameter.

Steel hook, nickeled. Inner surface of socket enameled red. Edge of socket polished.

No. 56	Weight 10 ozs.	Code LIVID	Price Each \$1.40
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Packed six in a box.

LEVELS



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**
SINCE
1868

No. 590 Torpedo Level



One 45-Degree Plumb, one 90-Degree Plumb and one Level

A beautiful new level, unique in the materials used and its wider range of usefulness.

The body is die cast, glossy black Bakelite, an ideal material for the purpose due to its great strength, imperviousness to moisture and the fact that it is affected less by temperature changes than either wood or metal.

The top plate is a heavy piece of polished "nickeloid" which sets flush with the body and gives ample protection to the level glass.

Two plumb, one 45 degrees and one 90 degrees, and one level vial are provided, all of the cat's-eye type, which affords better visibility in poorly illuminated places.

The bottom has a V-groove running its entire length.

	Dimensions, Inches	Weight	Code	Price Each
No. 590	9 x 1 1/4 x 3/4	5 ozs.	YUOMO	\$1.50

Packed one in a box.

Nos. 1012 to 1030 Aluminum Levels



The frame of these levels is cast aluminum designed to give maximum strength and rigidity with minimum weight. Round white openings with glass protection for vials, giving clear vision and luminosity. Leveling surfaces, ends and round vial rims finished in red.

Two Level and Two Plumb Vials on 12 and 18 Inch Lengths
Two Level and Four Plumb Vials on 24 to 30 Inch Lengths

	Dimensions, Inches	Weight	Code	Price Each
No. 1012	12 x 2 1/4 x 1 1/8	1 1/4 lbs.	PEBAM	\$2.30
No. 1018	18 x 2 1/4 x 1 1/8	1 3/4 lbs.	PEBEL	2.80
No. 1024	24 x 2 1/4 x 1 1/8	2 lbs.	PEBIT	3.30
No. 1026	26 x 2 1/4 x 1 1/8	2 1/4 lbs.	PEBLO	3.50
No. 1028	28 x 2 1/4 x 1 1/8	2 1/2 lbs.	PEBOX	4.00
No. 1030	30 x 2 1/4 x 1 1/8	2 3/4 lbs.	PEBUR	4.20

Packed one in a box.

No. 1042 Aluminum Masons' Level



Same fine materials, construction and finish as No. 1012 Series. With glass protected vials.

Two Level and Four Plumb Vials

	Dimensions, Inches	Weight	Code	Price Each
No. 1042	42 x 2 1/4 x 1 1/8	3 lbs.	PEBYK	\$10.00

Packed one in a box.

No. 629 Line Level



A featherweight model with a cat's-eye vial set in a hexagonal aluminum tube. The hooks and guards are so designed that it snaps on to a level line very easily but cannot be jumped off. Each level packed in a permanent container of transparent celluloid with a screw cap.

	Length	Weight	Code	Price Each
No. 629	3 inches	1/2 ozs.	ZABLO	\$0.50

Packed six in a box.

Nickel-Plated Pocket Levels

These levels are made from hexagon brass tubing, fully polished and nickel plated. They make very convenient and serviceable pocket levels.



	Length	Weight Box	Code	Price Each
No. 611	2 1/2 inches	5 ozs.	YUVHA	\$0.50
No. 612	3 1/2 inches	12 ozs.	YUVIK	.60

Packed six in a box.

Iron Levels

Grooved Base and Double Plumb



No. 505V



Nos. 506V and 507V



Nos. 509V and 510V

The frames of these levels are made of smooth, well-seasoned, gray iron castings. The tops and bottoms are accurately ground and the edges nicely polished, while the bodies are finished in glossy black enamel.

The base has an accurately milled V-groove its entire length for use in lining shafting, piping, and similar uses. This groove does not interfere in any way with the use of the level for all ordinary purposes.

Each level is fitted with one high-grade level vial and two plumb vials. These are accurately set in the frame and well protected from breakage.

The 6, 9 and 12 inch sizes have closed ends and the 18 and 24 inch sizes open ends, as shown above.

	Length	Weight	Code	Price Each
No. 505V	6 inches	5/8 lb.	YOYEG	\$2.40
No. 506V	9 inches	1 lb.	YOYJO	2.60
No. 507V	12 inches	1 1/4 lbs.	YOYOJ	2.70
No. 509V	18 inches	2 1/2 lbs.	YOZGA	3.80
No. 510V	24 inches	3 1/4 lbs.	YOZKO	4.45

Packed one in a box.

Wood Levels

Made of carefully selected and thoroughly air-dried birch or white pine as specified. Billets are allowed to season six to twelve months before being made into finished levels.

All wood levels are given three coats of weatherproof finish to preserve their accuracy. Hand grips are deep enough to afford a good grip without impairing the strength.

All levels, with the exception of the No. 2712 Series, have white openings for both Level and Plumb Vials, affording maximum luminosity, and also glass protection for all vials.



Made from a plain piece of straight grained white pine, thoroughly seasoned and finished with three weatherproof coats of red lacquer. White glass protected openings for vials.

Two Level and Two Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 124	24 x 2½ x 1¼	1½ lbs.	PEFAM	\$2.20
No. 130	30 x 2½ x 1¼	1½ lbs.	PEFUX	2.30

Packed one in a box.



One Level and One Plumb Vial

No.	Dimensions, Inches	Weight	Code	Price Each
No. 312	12 x 2½ x 1¼	1 lb.	PEGAM	\$1.10
No. 316	16 x 2½ x 1¼	1 lb.	PEGER	1.15
No. 318	18 x 2½ x 1¼	1 lb.	PEGIS	1.20
No. 320	20 x 2½ x 1¼	1 lb.	PEGLO	1.25
No. 324	24 x 2½ x 1¼	1½ lbs.	PEGMY	1.40
No. 326	26 x 2½ x 1¼	1½ lbs.	PEGOD	1.40
No. 328	28 x 2½ x 1¼	1½ lbs.	PEGUN	1.50
No. 330	30 x 2½ x 1¼	1½ lbs.	PEGYT	1.55

Packed one in a box.



Made from a solid billet of selected straight grained, thoroughly seasoned birch. They are stained mahogany and given a durable hot oil finish, making them highly weatherproof. Level vial protected by a brass plate.

One Level and One Plumb Vial

No.	Dimensions, Inches	Weight	Code	Price Each
No. 2712	12 x 2¾ x 1¼	¾ lb.	ZOFUG	\$1.60
No. 2718	18 x 2 ¾ x 1¼	1¼ lbs.	ZOFYP	1.70
No. 2724	24 x 2 ¾ x 1¼	1½ lbs.	ZOFZT	1.80

Packed one dozen in a wooden box.

White Pine Masons' Levels



Full brass binding. Straight grain, thoroughly seasoned white pine. Round white, glass protected openings. Red weatherproof finish.

Two Level and Four Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 748	48 x 2½ x 1¼	3½ lbs.	PEIHL	\$6.30



Same as above, but with oval openings. Full brass bound.

Two Level and Four Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 948	48 x 2½ x 1¼	3½ lbs.	PEJJO	\$6.30



Brass ends, but without binding. Oval openings.

Two Level and Four Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 848	48 x 2½ x 1¼	2½ lbs.	PEKAC	\$4.65



Same as above, but without brass ends. Round openings.

Two Level and Four Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 548	48 x 2½ x 1¼	2½ lbs.	PELEM	\$4.10



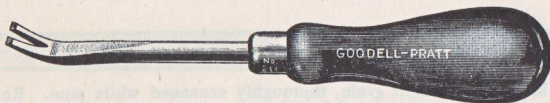
Plain. Round, glass protected openings. Red weatherproof finish.

One Level and Two Plumb Vials

No.	Dimensions, Inches	Weight	Code	Price Each
No. 448	48 x 2½ x 1¼	2½ lbs.	PEMAK	\$3.00

Packed one in a box.

No. 211 Tack Claw



This is a practical and serviceable tool for pulling all sizes of tacks. The blade is forged from a high grade of $\frac{3}{32}$ -inch steel, hardened, tempered, and polished. The Mahogany finished handle is hardwood, nicely polished.

No. 211	Length Overall 7 inches	Weight 3 ozs.	Code YEPIX	Price Each \$0.30
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Packed six in a box.

Nos. 798 and 799 Piercing Awls



No. 798



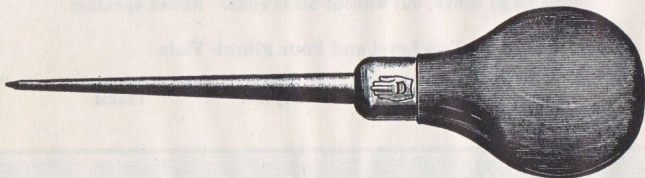
No. 799

For piercing thin sheets of soft metals and other materials and for a great variety of uses where a slim, keen-pointed blade is required. The blades are $2\frac{1}{2}$ inches long and made of tool steel carefully tempered and nicely polished. The handles are made of hardwood with an attractive lacquer finish.

	Blade	Length Overall	Weight	Code	Price per Dozen
No. 798	$2\frac{1}{2}$ inches	$4\frac{1}{8}$ inches	$\frac{1}{2}$ oz.	ZEGOB	\$4.00
No. 799	$2\frac{1}{2}$ inches	$6\frac{1}{8}$ inches	$\frac{3}{4}$ oz.	ZEGUC	4.00

Packed twelve in a box.

No. 335 Ship Carpenters' Awl

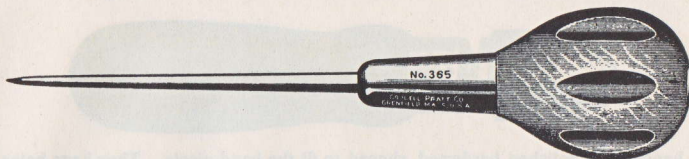


A short, stocky awl generally used by bridge builders and ship carpenters. It is a strong, serviceable tool. The blade is hammer-forged from good tool steel, and is carefully hardened, tempered, and polished. The handle, which is polished hardwood, mahogany finish, $1\frac{1}{4}$ inches in diameter, is protected by a heavy ferrule.

No. 335	Blade $2\frac{1}{2}$ inches	Length Overall 5 inches	Weight 1 oz.	Code YIRSA	Price per Dozen \$3.60
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Packed twelve in a box.

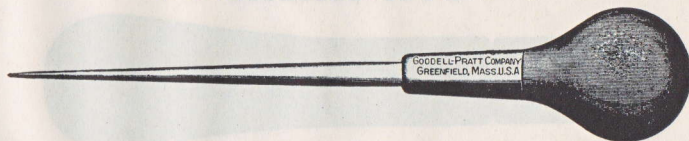
No. 365 Diamond Point Awl NEW



This new awl is an unusually fine value. The blade is hammer-forged tool steel, carefully hardened, tempered and polished. It runs clear through the handle, and is locked into a steel head set flush with the end of the handle. The handle, protected by a heavy steel ferrule, is selected hardwood with a natural lacquer finish and is fluted to give a good grip. These flutes also prevent the tool from rolling.

No. 365	Blade 3½ inches	Overall 6¾ inches	Weight 3 ozs.	Code YOANE	Price per Dozen \$5.30
Packed six in a box.					

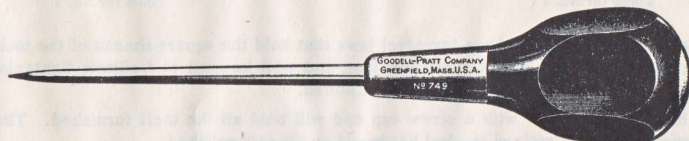
No. 344 Scratch Awl



This is an exceptionally well made and nicely balanced awl. The blade is hammer-forged tool steel, carefully hardened, tempered, and polished. The handle is hardwood, mahogany finish, 1½ inches in diameter, protected by a heavy steel ferrule.

No. 344	Blade 4 inches	Length Overall 7 inches	Weight 2 ozs.	Code YISUZ	Price per Dozen \$5.50
Packed six in a box.					

No. 749 Scratch Awl



This fine awl is provided with a flush steel head that is locked on to the hammer-forged tool steel blade, which is carefully hardened, tempered, and polished. The handle is hardwood, mahogany finish, protected by a heavy steel ferrule, and having five flat faces that give an exceptional grip and also prevent rolling.

No. 749	Blade 4¼ inches	Length Overall 8¼ inches	Weight 4 ozs.	Code ZAWIL	Price Each \$0.80
Packed six in a box.					

Nos. 104 and 106 Pin Vises



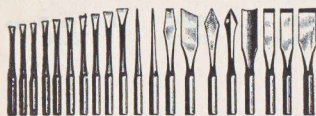
The handles are polished hardwood, shaped to fit the hand nicely. They have holes drilled through in order that wires or small rods of any length may be held.

The chucks are all steel with three hardened jaws. They have a very firm grip. The chuck shells are polished and nickel plated.

	Capacity	Net Weight	Code	Price Each
No. 104	0 to $\frac{5}{32}$ inch	4 OZS.	YAYIR	\$1.10
No. 106	0 to $\frac{1}{4}$ inch	6 OZS.	YAYMK	1.30

Packed one in a box.

Tool Holders



Tools for No. 1



Tools for No. 4

The chucks of these tools have two steel jaws that hold the square shanks of the tools supplied very securely. The chuck shells are long and well knurled to facilitate tightening and loosening. They are heavily nickel plated and buffed.

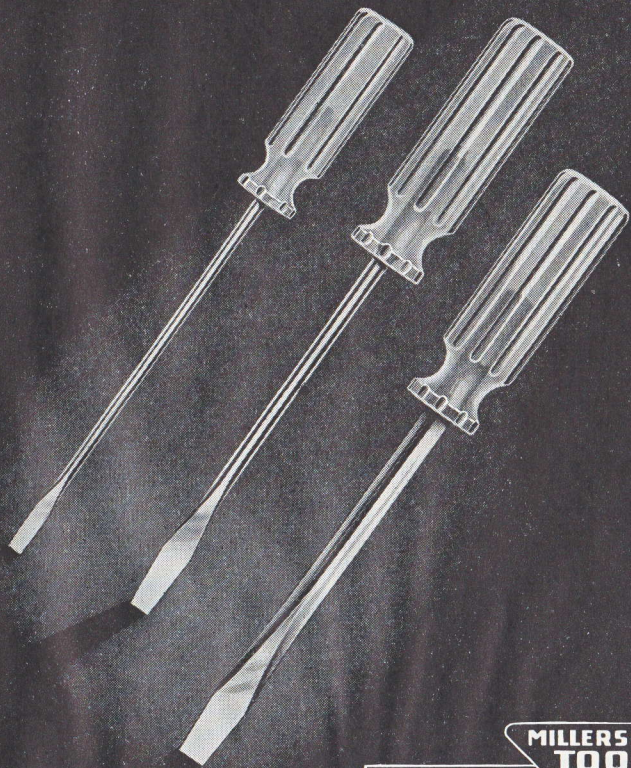
The handles are hollow with a screw cap and will hold all the tools furnished. They are turned from beautifully grained tropical hardwood and highly polished.

The tools are made of a good grade of steel, well shaped, carefully heat-treated and will give unusual service.

	Length Holder	No. of Tools	Length Tools	Weight	Code	Price Each
No. 1	6 inches	20	1 $\frac{3}{4}$ inches	$\frac{1}{2}$ lb.	FAIRY	\$2.00
No. 4	6 $\frac{1}{4}$ inches	10	2 $\frac{1}{4}$ inches	$\frac{5}{8}$ lb.	FECKS	2.50

No. 1 packed six in a box; No. 4 one in a box.

SCREW DRIVERS

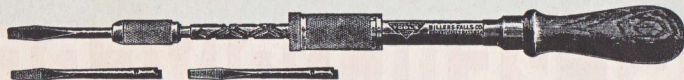


**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

Spiral Ratchet Screw Drivers



Chromium Plated

The smooth, powerful action and tested dependability of its vital operating mechanism make this the finest screw driver of its kind ever produced.

It automatically drives or draws screws, acts as a left or right hand ratchet or as a rigid screw driver. These actions are all controlled by simple shifting of the knurled control sleeve and the spiral lock nut.

The spiral is a solid rod of fine quality steel, precisely machined, running in two manganese bronze spiral nuts controlled by hardened tool steel ratchet pawls. Greatly increased life has been secured by nearly doubling the length of the spiral nuts and chromium plating them for far greater wear.

Three sizes of special analysis steel blades, individually tested, are furnished as regular equipment. They are quickly installed by drawing down the shell of the quick-acting chuck, inserting the shank and turning it to the right as far as possible and then releasing the chuck shell.

All exposed metal parts finely polished, chromium plated and buffed. Mahogany finished hardwood handle.

	Length Extended with Bit Inserted	Length Closed	Weight	Code	Price Each
No. 67A	12 $\frac{5}{8}$ inches	9 $\frac{3}{8}$ inches	9 $\frac{1}{2}$ ozs.	GAILY	\$2.65
No. 61A	20 $\frac{1}{2}$ inches	14 $\frac{1}{4}$ inches	18 $\frac{1}{2}$ ozs.	GALAX	3.55
No. 62A	26 $\frac{1}{4}$ inches	17 $\frac{1}{4}$ inches	1 $\frac{1}{2}$ lbs.	GABE	4.75
Extra Bits.....				Per dozen,	2.90

Packed one in a box.

Spiral Ratchet Screw Drivers

With Automatic Return



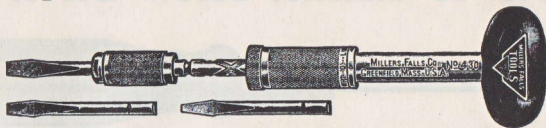
Chromium Plated

Same design and action as above, with the addition of a spring in the handle which automatically returns the handle for the next stroke. Makes one hand operation easy.

	Length Extended with Bit Inserted	Length Closed	Weight	Code	Price Each
No. 670A	13 $\frac{1}{2}$ inches	8 $\frac{1}{8}$ inches	$\frac{3}{4}$ lb.	GALEA	\$3.15
No. 610A	20 $\frac{1}{2}$ inches	12 $\frac{3}{8}$ inches	1 $\frac{1}{4}$ lbs.	GALIO	4.00
No. 620A	26 $\frac{1}{4}$ inches	16 $\frac{1}{8}$ inches	1 $\frac{1}{2}$ lbs.	GALOP	5.45
Extra Bits.....				Per dozen,	2.90

Packed one in a box.

Spiral Ratchet Screw Drivers



✓
NEW

New Easy Grip Model

Chromium Plated

These new tools are designed for use in close quarters and combine tremendous power with perfect control. Except for the shorter length and keg type handle they are the same as Nos. 61A and 610A on preceding page. Beautifully chromium plated including the bronze spiral nuts which prolongs the life of this vital part. Fitted with new and improved spiral lock nut.

	Length Extended	Length Closed	Weight	Price Each
No. 430	12¾ inches	8¼ inches	14 ozs.	\$3.55
No. 830 With Quick Return	13¾ inches	9¼ inches	16 ozs.	4.00
Extra Bits.....				Per dozen, 2.90

All automatic screw drivers packed one in a box.

Phillips Screw Driver Bits



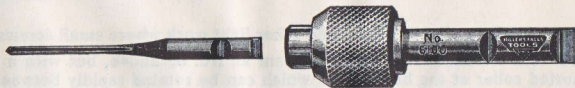
✓
NEW

Licensed under U. S. Patent 2046840

These blades for automatic screw drivers are made with special bits for handling Phillips Screws.

No.	Phillips Size	Fitting Screw Driver	Price Per Dozen
P11	No. 1	No. 61	\$7.80
P12	No. 2	No. 61	7.80
P13	No. 3	No. 61	7.80
P17	No. 1	No. 67	7.80
P27	No. 2	No. 67	7.80
P22	No. 2	No. 62	7.80
P23	No. 3	No. 62	7.80

Chuck and Drills



For Spiral Ratchet Screw Drivers

These attachments for the Spiral Ratchet Screw Drivers appearing on page 56 and 57 convert them into an efficient automatic drill for boring small holes, greatly increasing the utility of the driver.

The chuck has a ball lock that holds the new style drill points securely. It has a knurled tightening nut which is nicely polished as is the shank. Eight sizes of drills, 1/16 to 11/64 inch.

For Use with Screw Driver		Drills	Sizes	Weight	Code	Price Each
No. 6700	Nos. 67A and 670A	3	1 to 3	2 ozs.	GAMOT	\$0.55
No. 6100	Nos. 61A, 610A, 430 and 830	8	1 to 8	3 ozs.	GAMIC	1.00
No. 6200	Nos. 62A and 620A	8	1 to 8	4 ozs.	GAMOX	1.00

Packed in a round wooden box.

No. 63 Ratchet Screw Driver



Years of dependable service in the hands of innumerable owners have proven the merit of the smooth, quiet ratchet mechanism used in this screw driver.

The ratchet is controlled by means of the knurled shifter sleeve. Three settings give right hand ratchet, left hand ratchet and rigid respectively.

The blade is forged from the highest quality screw-driver steel. Ratchet frame is steel with hardened tool steel ratchet pawls and spring steel springs.

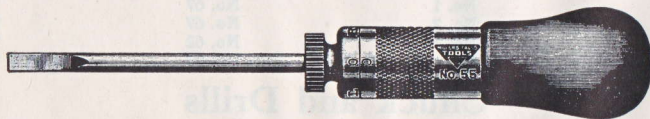
Handles are nicely mahogany finished hardwood.

Exposed metal parts polished and nickel plated.

	Length Blade	Weight	Code	Price Each
No. 63	2 inches	3 OZS.	GANGA	\$0.65
No. 63	3 inches	4 OZS.	GANIL	.75
No. 63	4 inches	5 OZS.	GAPER	.80
No. 63	5 inches	6 OZS.	GARRY	.90
No. 63	6 inches	8 OZS.	GARTH	1.00
No. 63	8 inches	9 OZS.	GARUM	1.15

Packed six in a box.

No. 55 Ratchet Screw Driver



Particularly adapted for radio, electrical and other light work where small screws are used.

It is equipped with the same ratchet mechanism as No. 63 above, but with a cabinet type blade with a knurled collar at the handle end which can be rotated rapidly between the thumb and finger.

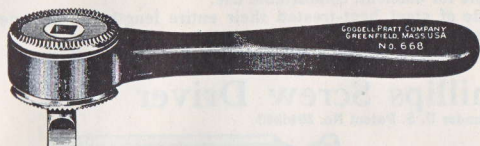
Three actions: Right and left hand ratchet and rigid.

Blade nicely polished, all other exposed metal parts polished and nickel plated. Hardwood handle has nice mahogany lacquer finish.

	Length Blade	Weight	Code	Price Each
No. 55	2 inches	3 OZS.	GATCH	\$0.70
No. 55	3 inches	3 OZS.	GATER	.75
No. 55	4 inches	3 OZS.	GATHA	.75
No. 55	5 inches	4 OZS.	GACUY	.80
No. 55	6 inches	4 OZS.	GAUDY	.85

Packed six in a box.

No. 668 Right Angle Ratchet Screw Driver

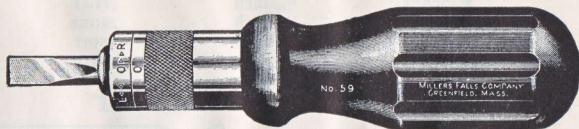


A unique tool that operates rapidly in innumerable places inaccessible to the ordinary screw driver. Sturdy right and left hand ratchet action obtained by shifting blade to one side or the other. New blade retainer makes shifting easy. Bit $\frac{1}{4}$ inch wide. All exposed steel parts nicely polished. Handle and head finished in red and black lacquer.

No. 668	Length Overall 4 inches	Weight 3 ozs.	Code ZAHUX	Price Each \$0.65
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Packed one in a box. Six boxes in a counter display carton.

No. 59 Ratchet Screw Driver



Exactly the same mechanism as the heavy sizes of No. 63, with a short, stocky blade and handle for use by gunsmiths, locksmiths, electricians, mechanics and others who need a heavy duty ratchet driver.

Three actions: Right and left hand ratchet and rigid.

Exposed metal parts polished and nickel plated. Handle mahogany lacquered hardwood.

No. 59	Length Blade $1\frac{1}{8}$ inches	Length Overall $6\frac{1}{4}$ inches	Weight 6 ozs.	Code GAWBY	Price Each \$0.90
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Packed six in a box.

Permaloid Handle Screw Drivers

These handsome new screw drivers are even more durable and efficient than they are beautiful.

The handles are made of transparent bright red Permaloid. Permaloid is an unbreakable, shockproof material, ideal for a screw driver in every way. They are ribbed to give a positive grip and the lengths and diameters ample for efficient, comfortable use.

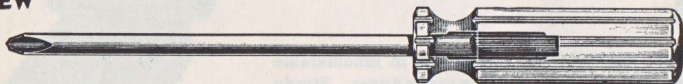
The blades are made of a fine grade of steel heat-treated their entire length for extreme toughness, the bits are cross ground, the entire blade nicked and ball burnished.

We are confident that the drivers listed below represent the greatest value in their class.



No. 850 Phillips Screw Driver

Licensed under U. S. Patent No. 2046840

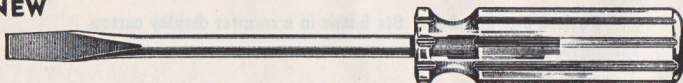


These drivers are designed to handle the Phillips Recessed Head Screw which is gaining rapidly in popularity. The blades are machined within very close limits to fit the screws perfectly. Blades nicely polished. Transparent red Permaloid handles.

	Phillips Size	Length Blade	Diameter Blade	Code	Price Each
No. 850	No. 1	3 inches	$\frac{5}{64}$ inch	ZENAX	\$0.70
No. 850	No. 2	4 inches	$\frac{1}{4}$ inch	ZENFO	.75
No. 850	No. 3	6 inches	$\frac{5}{16}$ inch	ZENKA	.90
No. 850	No. 4	8 inches	$\frac{3}{8}$ inch	ZENRO	1.20



No. 851 Screw Driver



Cross ground, standard type, round shank blades with nicked and burnished finish. Transparent red Permaloid handles.

	Length Blade	Diameter Blade	Code	Price per Dozen
No. 851	4 inches	$\frac{9}{32}$ inch	ZEODY	\$5.40
No. 851	6 inches	$\frac{5}{16}$ inch	ZEOPA	7.50
No. 851	8 inches	$\frac{3}{8}$ inch	ZEOHE	9.60
No. 851	10 inches	$\frac{3}{8}$ inch	ZEOIT	12.60
No. 851	12 inches	$\frac{3}{8}$ inch	ZEOPA	14.40



No. 852 Screw Driver

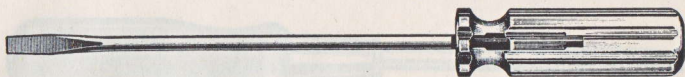


Bits forged on the diagonal from fine quality square stock. Cross ground. Nicked and burnished. Transparent red Permaloid handles.

	Length Blade	Diameter Blade	Code	Price per Dozen
No. 852	4 inches	$\frac{1}{4}$ inch	ZEOJT	\$6.30
No. 852	6 inches	$\frac{5}{16}$ inch	ZEOKA	9.00
No. 852	8 inches	$\frac{3}{8}$ inch	ZEOKM	11.10
No. 852	10 inches	$\frac{3}{8}$ inch	ZEOKO	14.10
No. 852	12 inches	$\frac{3}{8}$ inch	ZEOKR	15.90

Packed six in a box.

No. 853 Cabinet Screw Driver NEW

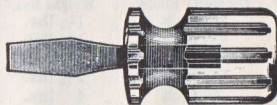


Blades hammer forged from high grade $\frac{3}{16}$ -inch round stock and tempered entire length. Cross ground, burnished nickel finish. Indestructible, transparent red Permaloid handles.

	Length Blade	Diameter Blade	Code	Price per Dozen
No. 853	3 inches	$\frac{3}{16}$ inch	ZEOKS	\$4.85
No. 853	6 inches	$\frac{3}{16}$ inch	ZEOLA	5.70
No. 853	8 inches	$\frac{3}{16}$ inch	ZEOLD	6.25
No. 853	10 inches	$\frac{3}{16}$ inch	ZEOLE	6.80

Packed six in a box.

No. 854 Stubby Screw Driver


 NEW

A powerful, sturdy tool for use in close quarters and to carry in the pocket. Blade is $1\frac{1}{2}$ inches long, forged from high grade $\frac{5}{16}$ -inch square stock. The indestructible, transparent red Permaloid handle is $1\frac{1}{4}$ inches in diameter. Overall length, $3\frac{1}{2}$ inches.

	Length Blade	Size Blade	Code	Price per Dozen
No. 854	$1\frac{1}{2}$ inches	$\frac{5}{16}$ inch	ZEOMU	\$5.15

Packed six in a box.

No. 855 Vest Pocket Screw Driver


 NEW

The pencil clip with which this little screw driver is equipped makes it ideal for the vest pocket. The nicker blade is made of $\frac{1}{8}$ -inch round stock, just right size to handle innumerable screws too small for the ordinary driver. The handle is transparent red Permaloid. Overall length, 4 inches.

	Length Blade	Diameter Blade	Code	Price per Dozen
No. 855	2 inches	$\frac{1}{8}$ inch	ZEORA	\$1.80

Packed six in a box.

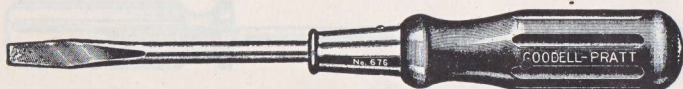
No. 857 Vest Pocket Screw Driver Display NEW

This counter card holds one dozen of the No. 855 Vest Pocket Screw Drivers described above. It will accelerate the sale of this tool greatly without taking up much counter space.

	Code	Price Each
No. 857 Display Complete	ZEOWR	\$1.80

Packed one display in a box.

No. 676 Steel Head Screw Driver



An extra fine quality screw driver with a steel head set into the end of the handle and everlastingly locked directly to the shank of the blade. The more hammering on the head, the tighter this lock becomes.

The blades are hammer-forged from a fine quality of tool steel selected for its remarkable toughness when properly heat-treated. The shanks have long, wide wings forged on them that preclude any chance of turning in the handle. The handles, of excellent shape and fluted to give a good grip, are made of selected hardwood with a fine mahogany lacquer finish. The handle is protected by a heavy steel ferrule pinned through the blade.

The blades are highly polished and the steel head and ferrule nickel plated.

	Length Blade	Diameter Blade	Weight Box	Code	Price per Dozen
No. 676	3 inches	$\frac{7}{32}$ inch	1 $\frac{1}{4}$ lbs.	ZAJUZ	\$5.00
No. 676	4 inches	$\frac{9}{32}$ inch	1 $\frac{3}{4}$ lbs.	ZAJVE	5.50
No. 676	5 inches	$\frac{5}{16}$ inch	2 $\frac{1}{2}$ lbs.	ZAJYO	5.90
No. 676	6 inches	$\frac{5}{16}$ inch	2 $\frac{3}{8}$ lbs.	ZAKAV	6.30
No. 676	8 inches	$\frac{3}{8}$ inch	4 lbs.	ZAKIX	8.00
No. 676	10 inches	$\frac{3}{8}$ inch	4 $\frac{1}{2}$ lbs.	ZAKOZ	10.00
No. 676	12 inches	$\frac{3}{8}$ inch	5 lbs.	ZAKUB	12.00

Packed six in a box.

No. 909 Screw Driver



The same fine screw driver described above but without the steel head. No finer general purpose screw driver can be made.

Finely polished tool steel blade. Pinned nickel-plated ferrule and mahogany lacquered hardwood handle.

	Length Blade	Diameter Blade	Weight Box	Code	Price per Dozen
No. 909	2 inches	$\frac{7}{32}$ inch	$\frac{3}{4}$ lb.	ZIASP	\$3.00
No. 909	3 inches	$\frac{7}{32}$ inch	$\frac{7}{8}$ lb.	ZIAWS	3.40
No. 909	4 inches	$\frac{9}{32}$ inch	1 $\frac{3}{8}$ lbs.	ZIAXT	3.60
No. 909	5 inches	$\frac{5}{16}$ inch	1 $\frac{7}{8}$ lbs.	ZIBBO	4.00
No. 909	6 inches	$\frac{5}{16}$ inch	2 lbs.	ZIBIZ	4.20
No. 909	8 inches	$\frac{3}{8}$ inch	3 $\frac{1}{4}$ lbs.	ZIBUC	5.50
No. 909	10 inches	$\frac{3}{8}$ inch	3 $\frac{3}{4}$ lbs.	ZIBWA	6.50
No. 909	12 inches	$\frac{3}{8}$ inch	4 $\frac{1}{8}$ lbs.	ZIBYE	8.00
No. 909	14 inches	$\frac{3}{8}$ inch	4 $\frac{3}{8}$ lbs.	ZICAY	9.20
No. 909	16 inches	$\frac{3}{8}$ inch	5 lbs.	ZICCO	11.00
No. 909	18 inches	$\frac{3}{8}$ inch	5 $\frac{1}{2}$ lbs.	ZICZC	12.40

Packed six in a box.

No. 355 Cabinet Screw Driver



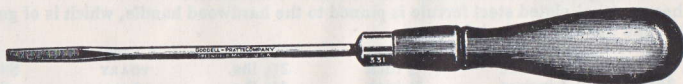
Manufactured from the best materials obtainable for the purpose and finished in keeping. The blades are hammer-forged from a high grade tool steel, carefully hardened and oil tempered and nicely polished.

The handles are made of hardwood, fluted to give a good grip and nicely finished in mahogany lacquer. Handles are protected by heavy steel ferrules, securely pinned on.

	Length Blade	Diameter Blade	Weight Box	Code	Price per Dozen
No. 355	2½ inches	7/32 inch	7/8 lb.	YIWAY	\$3.55
No. 355	3½ inches	7/32 inch	7/8 lb.	YIWEZ	3.80
No. 355	4½ inches	7/32 inch	1 lb.	YIWIB	4.00
No. 355	5½ inches	7/32 inch	1 lb.	YIWOC	4.50
No. 355	6½ inches	7/32 inch	1½ lbs.	YIWUD	5.05
No. 355	8½ inches	7/32 inch	1¼ lbs.	YIZAB	6.10
No. 355	10½ inches	7/32 inch	1½ lbs.	YIZCE	7.35
No. 355	12½ inches	7/32 inch	1½ lbs.	YIZEC	8.60

Packed six in a box.

No. 331 Jewelers' Screw Driver



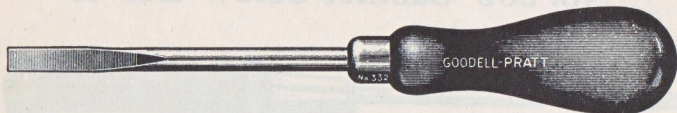
A slim, light screw driver of the best quality suitable for the most delicate work. The blades are hammer-forged from the best quality tool steel, carefully hardened and tempered.

The handles are hardwood with a fine mahogany lacquer finish. They are protected with a nickel-plated steel ferrule.

	Length Blade	Diameter Blade	Weight Box	Code	Price per Dozen
No. 331	2 inches	9/64 inch	3/8 lb.	YINPA	\$3.50
No. 331	3 inches	9/64 inch	3/8 lb.	YINSO	3.70
No. 331	4 inches	9/64 inch	½ lb.	YINUT	4.00
No. 331	5 inches	9/64 inch	½ lb.	YINVV	4.40
No. 331	6 inches	9/64 inch	5/8 lb.	YIOCH	4.80
No. 331	8 inches	9/64 inch	¾ lb.	YIOFK	5.80
No. 331	10 inches	9/64 inch	7/8 lb.	YIOHM	6.80
No. 331	12 inches	9/64 inch	1 lb.	YIOJN	8.20

Packed six in a box

No. 332 Screw Driver

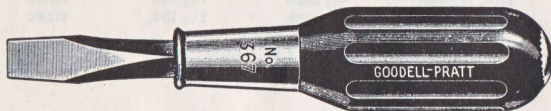


A fine quality driver designed for those who prefer a smooth, round handle and a wingless blade for following screws into deep holes. Hammer-forged blade of high-grade steel, carefully hardened and heat-treated and beautifully polished.

Handle turned from selected hardwood and nicely finished in mahogany lacquer. Nickel-plated steel ferrule.

	Length Blade	Diameter Blade	Weight Box	Code	Price per Dozen
No. 332	1½ inches	7/32 inch	½ lb.	YIONS	\$3.30
No. 332	2 inches	7/32 inch	5/8 lb.	YIOPT	3.40
No. 332	3 inches	9/32 inch	7/8 lb.	YIOSY	3.60
No. 332	4 inches	9/32 inch	1½ lbs.	YIOVB	4.00
No. 332	5 inches	5/16 inch	1½ lbs.	YIOXD	4.40
No. 332	6 inches	5/16 inch	1¾ lbs.	YIPER	4.80
No. 332	8 inches	3/8 inch	2¼ lbs.	YIPTO	5.80

No. 367 Machinists' Screw Driver



A heavy, powerful screw driver with a hammer-forged blade made of a fine quality of 3/8-inch square alloy steel, hardened and tempered for extreme toughness for heavy duty service.

The blade is highly polished. The shank runs clear through the handle and is positively locked into a heavy steel head set flush with the end of the handle.

The heavy nickel-plated steel ferrule is pinned to the hardwood handle, which is of good size, well fluted and finished in black lacquer.

	Length Blade	Stock	Weight Box	Code	Price per Dozen
No. 367	2 inches	3/8 inch	2½ lbs.	YOARY	\$8.00
No. 367	3 inches	3/8 inch	3½ lbs.	YOASZ	8.70
No. 367	4 inches	3/8 inch	3¾ lbs.	YOAWD	9.50
No. 367	6 inches	3/8 inch	4 lbs.	YOAWO	10.80



NEW

No. 69 Stubby Screw Driver

A new tool so small that it is unnoticed in the side pocket and still fits the palm of the hand so snugly and with such a positive grip that screws out of all proportion to its size are driven or drawn with ease. An invaluable tool for general repair work, machine adjustments, appliance repairs, and all work in close quarters.

The finely polished tool steel blade, 1½ inches long, is set in a fluted hardwood handle finished in natural lacquer and protected with a heavy steel ferrule.



	Length Blade	Overall	Weight Box	Code	Price Each
No. 69	1½ inches	4½ inches	14 ozs.	YALEA	\$0.25

Packed six in a box.

No. 100 Pocket Screw Driver

Just the driver for making adjustments and for general utility use. The mahogany lacquered hardwood handle is large enough to give a sure grip, yet small enough to be carried in the pocket without discomfort. Equipped with a fine tool steel blade, 1½ inches long, carefully hardened and tempered, and nicely polished. The ferrule is nickel plated.

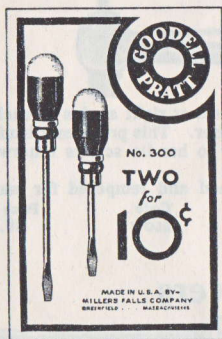
Mounted on a gold card printed in red and black.

No.	Card Size	Weight Box	Code	Price Each
No. 100	3½ x 5½ inches	11 ozs.	YAWPO	\$0.25

Packed six in a box.



Small Screw Drivers



No. 300



No. 3300

No. 300. These two attractive and useful little screw drivers have 1½ and 2½ inch white nickeled blades, nickeled ferrules, hardwood handles attractively finished in red and black lacquer. They are mounted on a silver card printed in red and black.

No.	Card Size	Weight Box	Code	Price per Card
No. 300	3½ x 5½ inches	1¾ lbs.	YIGKA	\$0.10

Packed two dozen cards in a box.

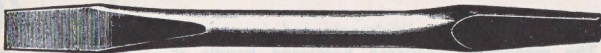
No. 3300. A compact counter display basket that contains 5 dozen of the well-known No. 300 Pocket Screw Drivers assorted equally in the 1½ and 2½ inch blade lengths.

The display basket—entirely free—is packed in as a unit with each assortment of five dozen screw drivers.

No.	Code	Price Each
No. 3300 Complete	ZOGLO	\$3.00

Packed one in a box.

Screw-Driver Bits



An unexcelled line, hammer-forged from the best quality of steel procurable for the purpose. Carefully hardened, tempered and nicely polished.

Points carefully formed and accurately finished to fit the slots of the size screws for which they are intended. Length, 5 inches overall.

	Size	Size Screws	Weight Doz.	Code	Price per Dozen
No. 351	$\frac{1}{16}$ inch	6 to 8	$\frac{3}{4}$ lb.	YIVOB	\$2.65
No. 352	$\frac{5}{16}$ inch	8 to 12	$\frac{3}{4}$ lb.	YIVUC	2.75
No. 353	$\frac{1}{4}$ inch	12 to 16	1 lb.	YIVWA	2.85
No. 552	$\frac{7}{16}$ inch	16 to 20	1 $\frac{1}{4}$ lbs.	YUHTB	2.85
No. 553	$\frac{1}{2}$ inch	20 to 24	1 $\frac{1}{2}$ lbs.	YUHUX	2.95
No. 584	$\frac{1}{4}$ to $\frac{3}{4}$ Asst.	6 to 16	$\frac{3}{4}$ lb.	YUNIC	2.75

Packed six in a box.

No. 199 Offset Screw Driver



This driver is equipped with four blades, two at either end set at right angles to each other and the pair at one end set at 45 degrees from the pair at the other. This provides a blade position for eight positions of the screw slot, making it possible to handle screws otherwise inaccessible.

Blades are machined from fine quality tool steel, hardened and tempered for maximum toughness.

No. 199

Length
 $5\frac{1}{4}$ inches

Weight
3 ozs.

Code
YELLOW

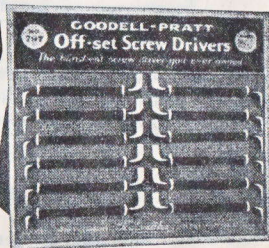
Price Each
\$0.35

Packed six in a box.

Offset Screw Drivers



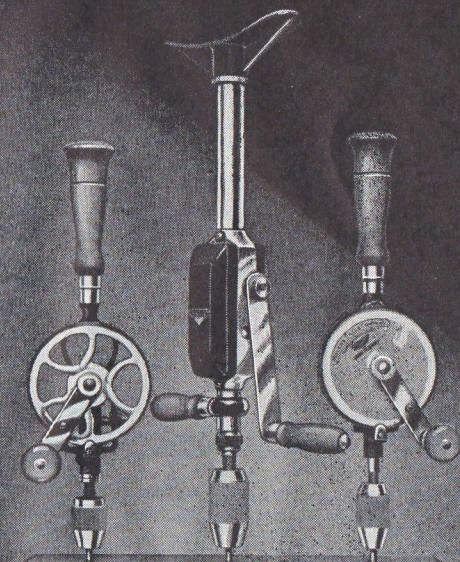
A wonderful tool for reaching out-of-the-way screws, starting frozen ones or wherever a lot of power is necessary. Forged from a fine grade of octagon steel, carefully hardened and tempered, with the bits nicely polished. Blades are set at right angles to one another, and on opposite sides of the handle. No. 797 can be supplied mounted one dozen on an attractive counter display card printed in three colors, which has stimulated the sale of this very useful tool many hundred per cent. Made in two sizes, $4\frac{1}{4}$ inches and 8 inches.



	Length	Stock	Weight Box	Code	Price per Dozen
No. 797	$4\frac{1}{4}$ inches	$\frac{1}{4}$ inch	1 $\frac{1}{4}$ lbs.	ZEGMO	\$3.00
No. 797	Mounted on counter display		1 $\frac{1}{2}$ lbs.	ZEGIZ	3.00
No. 579	8 inches	$\frac{3}{8}$ inch	4 lbs.	YUNAZ	6.00

Packed one dozen in a box or one card in an envelope.

DRILLS



MILLERS FALLS
HAND AND BREAST DRILLS

**GOODELL-
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

No. 81 Automatic Drill



The magazine handle of this well-known drill makes selection and removal of drill points extremely easy. By loosening the knurled lock nut below, the entire handle drops down, exposing all eight drill points. Each drill point is in a separate numbered compartment. The diameter of each drill also appears.

Drill points of new pattern seat and lock positively in the chuck when the knurled chuck nut is tightened.

Sturdy, smooth-operating mechanism. The center or spiral nut, which takes most of the wear, is made of Tobin bronze and with proper lubrication is good for many years' service.

Eight drill points, $\frac{1}{16}$ to $\frac{1}{4}$ inch in diameter, supplied with each drill.

Entire tool beautifully polished, nickered and buffed.

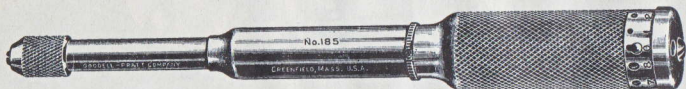
	Length	Weight	Code	Price Each
No. 81	10½ inches	9 ozs.	DELSA	\$2.70

Packed one in a box.

No. 185 Automatic Drill

Registered U. S. Patent Office as

Mr. Punch



A world famous drill that embodies every feature desirable in a tool of this kind. The operating mechanism is sturdy, smooth acting and long lived.

The front portion of the tool is made of hollow brass tubes, on one of which a carefully machined spiral is cut. This runs through a spiral cut in the center nut, which is made of a very hard grade of bronze.

The finely knurled handle is of the magazine type, having individual compartments for the eight different size drill points. Each one of these compartments is numbered and below the number is a hole or gauge showing the size of hole drilled by the point in that compartment. Drill points are removed or returned by turning the hole in the rotating cap opposite the proper compartment and tipping out the point. Only one compartment opens at a time.

The chuck has two hardened steel jaws which clamp down tightly on the fluted shanks of the drill points, making it impossible for them to slip or pull out.

Eight fluted shank drill points, $\frac{1}{16}$ to $\frac{1}{4}$ inch in diameter, regular equipment.

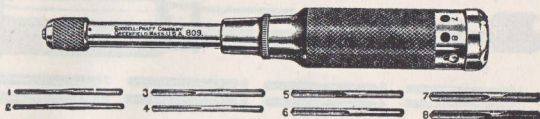
Entire tool finely polished, nickel plated and highly buffed.

	Length	Weight	Code	Price Each
No. 185	10 inches	½ lb.	YEKIJ	\$2.30

Packed one in a box.

No. 809 Automatic Drill

Mr. Punch Junior



This drill is only 7½ inches long, making it very easy to use in cramped places. It is also short enough to fit the pocket.

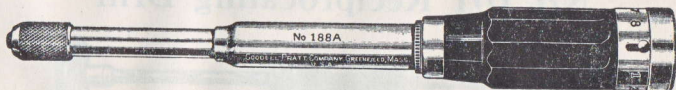
It bores holes just as rapidly as the longer models. Eight drill points, ⅛ to ⅜ inch in diameter, are held in separate numbered compartments in the patented magazine handle from which they are released one at a time through a hole in the rotating cap. A drill point gauge shows the size hole bored by the drill in each compartment. All exposed metal parts nicely polished, nickel plated, and highly buffed.

Eight fluted drill points, ⅛ to ⅜ inch in diameter, furnished.

No. 809	Length 7½ inches	Weight ½ lb.	Code ZEILF	Price Each \$2.20
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Packed one in a box.

No. 188A Automatic Drill



This tool is built for the home, to provide a highly efficient drill at a very reasonable price, that any man, woman, or child can use to bore the many holes needed from time to time, for installing the many modern fixtures that go into every room in the house, and innumerable other uses.

It drills eight different size holes quickly, and with surprising ease, in hard and soft wood, soft metals, wall board, plaster, etc. The eight drill points are contained in the numbered compartments in the magazine handle. They are safely locked in until wanted.

To remove the size drill wanted, release the cap lock by slipping down the lock button, turn the hole in the cap opposite the proper drill compartment and tip out the drill.

Insert the drill selected in the four-jawed chuck, tighten the chuck nut and the tool is ready to use. Place the drill point where the hole is wanted and simply push down a few times, allowing the handle to spring back after each stroke, and there is a good clean hole.

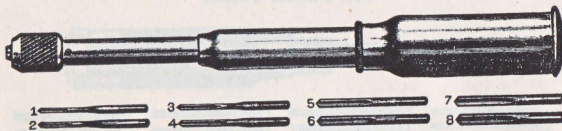
The handle is jet black molded bakelite with a polished aluminium band just below the rotating cap. The exposed metal parts are beautifully polished and nickel plated. The spiral driving mechanism is very well made and is practically indestructible with proper lubrication.

Eight fluted shank drill points, ⅛ inch to ⅜ inch in diameter, are furnished with each drill.

No. 188 A	Length 9¾ inches	Weight 6 ozs.	Code YEKNA	Price Each \$1.90
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Packed one in a box.

No. 03 Automatic Drill



This tool has exactly the same mechanical construction as the other Goodell-Pratt drills, the only difference being that the brass tubing of which they are made is not polished. They are finished in white nickel, which affords a considerable saving in cost without detracting in any way from the efficiency of the tool.

Patented brass magazine handle with eight numbered compartments, each holding a drill point. Drill points removed through hole in the rotating cap. Dull nickel finish.

Eight fluted shank drill points, $\frac{1}{16}$ to $1\frac{1}{64}$ inch in diameter, regular equipment.

	Length	Weight	Code	Price Each
No. 03	9 $\frac{3}{4}$ inches	9 ozs.	WYDFE	\$1.90

Packed one in a box.

No. 101 Reciprocating Drill



This tool is designed for rapid drilling in iron, brass, or wood, as well as for use in places where a bit brace or breast drill cannot be used.

The traveling handle contains the flanges and hard bronze nuts which constitute the simple and durable driving mechanism, which causes the chuck to revolve continuously to the right when the traveling handle is moved either forward or backward.

Both the head and traveling handle are made of selected hardwood with a fine mahogany lacquer finish.

The head has a heavy steel quill running on ball bearings. The polished steel spiral, 12 $\frac{1}{2}$ inches long, is accurately cut to a 17 $\frac{1}{2}$ degree angle, giving ample power.

The chuck is all steel, with three hardened jaws holding round shank drills 0 to $\frac{1}{4}$ inch in diameter.









No drills furnished with this tool.

	Length	Weight	Code	Price Each
No. 101	16 $\frac{1}{2}$ inches	15 ozs.	YAWUS	\$3.30

Packed one in a box.

Fluted Shank Drill Points

For Use in all Goodell-Pratt Automatic Drills

No.	App. Size	No.	App. Size
1	 1/8	5	 1/8
2	 5/16	6	 9/16
3	 3/4	7	 5/8
4	 7/8	8	 1 1/8

These drill points have fluted shanks for use in the two-jawed chucks of automatic drills. They are manufactured from the finest grade of tool steel, are very carefully hardened and oil tempered.









The straight flutes are very desirable for drilling wood or soft metals.
Length overall, about 2 inches.

Price, per dozen	Length 2 inches	Code ZOTOZ	\$1.10
Price, per set of 8	2 inches	ZOTPA	.80

Packed one dozen or one set in an envelope.

Round Shank Drill Points

For Use in Three-Jawed Chucks

No.	App. Size	No.	App. Size
1	 1/8	5	 1/8
2	 5/16	6	 9/16
3	 3/4	7	 5/8
4	 7/8	8	 1 1/8

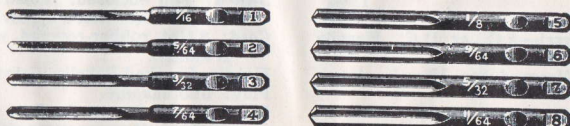
Same as the above, but with plain round shanks that can be held in any three-jawed chuck of sufficient capacity.

Price, per dozen	Length 2 inches	Code ZOTUB	\$0.55
Price, per set of 8	2 inches	ZOTVA	.40

Packed one dozen or one set in a wooden box.

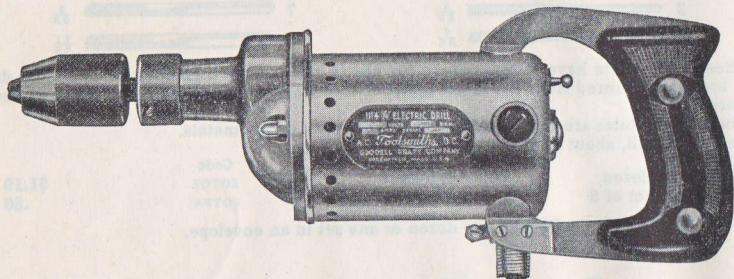
New Style Drill Points

For Use in Millers Falls and Some Other Makes of Automatic Drills



Price, per dozen	Length 2 inches	Code DETOR	\$1.10
Price, per set of 8	2 inches	DETOT	.80

Packed one dozen or one set in a wooden box.

No. 1114 $\frac{1}{4}$ -Inch Electric Drill

This $\frac{1}{4}$ -inch electric drill is a remarkable value. It is equipped with a high grade over-size motor and is capable of drilling full $\frac{1}{4}$ -inch holes in steel at a rate of better than 2 inches per minute.

The general appearance is most pleasing. The chuck and knurled spindle collar are plated; the die-cast gear housing is finished in glossy red enamel and the steel motor housing and handle frame have a highly polished rust-proof finish. The handle grips are shiny black bakelite.

Specifications

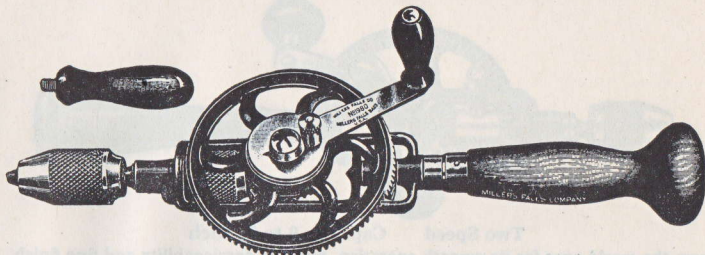
Capacity (In steel)	$\frac{1}{4}$ "	Gears and Spindle: Chrome Nickel Steel, heat-treated.
Speed: No Load, R.P.M.	2750	Chuck: $\frac{1}{4}$ " G-P Keyless.
Speed: At rated Load, R.P.M.	1500	$\frac{1}{4}$ " Jacobs—Optional.
Amps: Full Load	2.2	Switch: Full enclosed. Positive make and break Underwriter's approval.
Length	$13\frac{3}{16}$ "	Cord: 8 feet, rubber-covered, with protector at handle.
Weight	5 lbs.	Handle: Checked Bakelite Grips.
Motor: Universal—A.C. or D.C. Heavily insulated. Fan cooled.		Plug: Unbreakable.
Commutator: Heavy duty. Mica-insulated.		Lubrication: Grease in Gear Case. Light machine oil commutator end bearing.
Bearings:		
Motor: Self-aligning bronze.		
Spindle: Extra long bronze—Ball thrust at rear.		

No. 1114 —with G-P Keyless Chuck, 110 or 220V
No. 1114J—with Jacobs Chuck, 110 or 220V

\$18.00
19.50

Packed one in a box.

No. 1980 Ratchet Hand Drill



Two Speed Ratchet Capacity 0 to $\frac{3}{8}$ Inch

A finely developed and beautifully made two-speed drill with a powerful, smooth-acting ratchet mechanism.

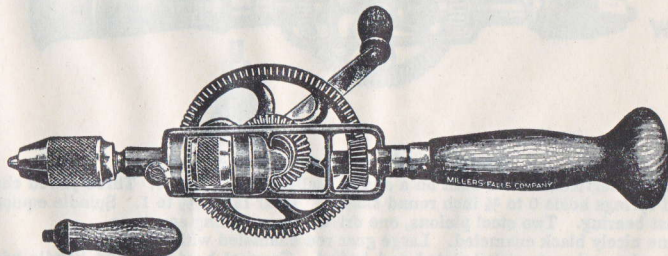
The ratchet can be shifted instantly to left or right or eliminated entirely. Two speeds are provided, the ratios being 4 to 1 in high and $1\frac{1}{2}$ to 1 in low, controlled by turning the knurled sleeve on the spindle. The chuck is the improved Millers Falls type with protected springs and capacity for 0 to $\frac{3}{8}$ inch round shank drills. The fully enclosed steel pinions, large gear and compensating idler have machine-cut teeth. The spindle is equipped with a ball thrust bearing.

The solid end handle, crank and side handles are hardwood with a fine mahogany lacquer finish. The malleable iron frame is finished in glossy black enamel and large gear in an attractive red enamel.

All exposed metal parts are polished, nicked and buffed.

No. 1980	Capacity $\frac{3}{8}$ inch	Length 15 $\frac{3}{4}$ inches	Weight 3 $\frac{1}{4}$ lbs.	Code DABAK	Price Each \$7.30
Packed one in a box.					

No. 980 Hand Drill

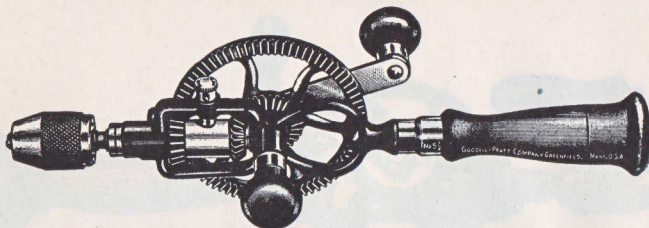


Two Speed Capacity 0 to $\frac{3}{8}$ Inch

Exactly the same as No. 1980 above, but without the ratchet mechanism.

No. 980	Capacity $\frac{3}{8}$ inch	Length 15 $\frac{3}{4}$ inches	Weight 3 $\frac{1}{8}$ lbs.	Code DACEK	Price Each \$6.00
Packed one in a box.					

Nos. 5½ and 5½B Hand Drills



Two Speed Capacity 0 to ¾ Inch

Known the world over for its smooth operation, years of serviceability and fine finish.

Equipped with an all-steel chuck for holding round shank drills up to ¾ inch in diameter. Two speeds with ratios of 3.8 to 1 and 1.3 to 1, changed by turning the shifter knob. Ball bearing spindle. Steel pinions.

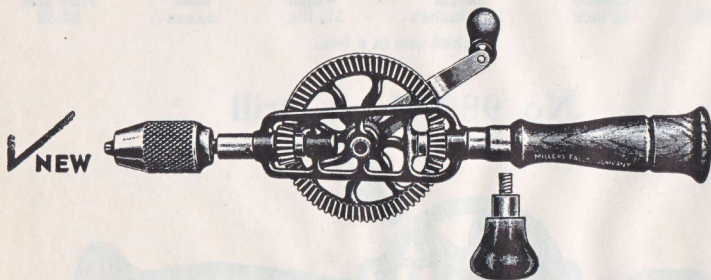
Black enameled malleable iron frame. Large gear red enameled. Hollow tropical hardwood end handle with screw cap. Side and crank handles mahogany finished hardwood. All exposed metal parts nicely polished, nicked and buffed.

No. 5½B is exactly the same as No. 5½, but with solid mahogany finished hardwood end handle same as No. 980.

	Capacity	Length	Weight	Code	Price Each
No. 5½	¾ inch	14½ inches	2½ lbs.	WYFUK	\$6.00
No. 5½B	¾ inch	15 inches	2½ lbs.	WYGAG	6.00

Packed one in a box.

Nos. 2 and 2B Hand Drills



Single Speed Capacity 0 to ¾ Inch

A strong, serviceable tool built on a sturdy malleable iron frame. Three-jawed chuck with protected springs holds 0 to ¾ inch round shanks. Gear ratio 4½ to 1. Spindle equipped with ball thrust bearing. Two steel pinions, one drive and one idling equalizer.

Frame nicely black enameled. Large gear red enameled with nicked rim.

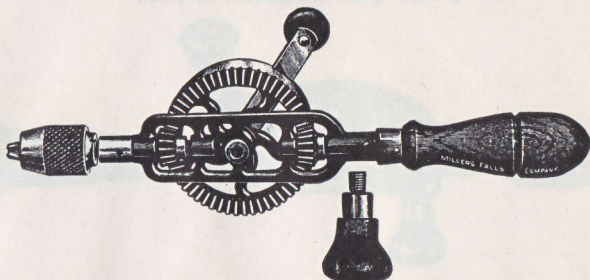
Exposed metal parts nickel plated and buffed. Tropical hardwood end handle with screw cap. Eight drill points, ⅛ to 1½ inch in diameter, regular equipment.

No. 2B is exactly the same as No. 2 but with solid mahogany finished hardwood end handle same as No. 980 and without drill points.

	Capacity	Length	Weight	Code	Price Each
No. 2	¾ inch	14½ inches	2½ lbs.	DAGER	\$5.30
No. 2B	¾ inch	15 inches	2½ lbs.	DAGOT	4.50

Packed one in a box.

Nos. 5 and 05 Hand Drills



Single Speed Capacity 0 to 1/4 Inch

These drills are equipped with a wide rim on the large gear that can be grasped easily by the thumb and fingers to start small drills and on delicate work. Gear red enameled with polished and nicked rim. Steel drive pinion and equalizing idler pinion. Three-jawed chuck with protected springs. Holds 0 to 1/4 inch round shank drills. Black enameled malleable iron frame. All exposed metal parts nickel plated.

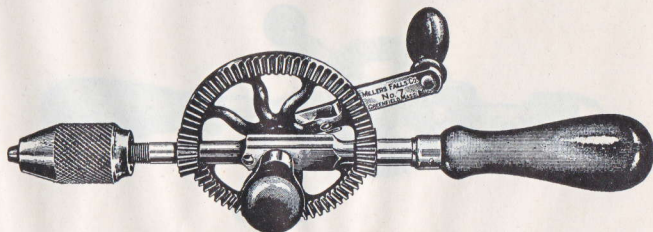
No. 5 has a hollow tropical hardwood end handle with screw cap and is regularly equipped with eight drill points, 1/16 to 11/64 inch in diameter.

No. 05 has a solid mahogany finished hardwood end handle and has no drill points.

	Capacity	Length	Weight	Code	Price Each
No. 5	1/4 inch	12 3/8 inches	1 3/8 lbs.	DANGL	\$4.40
No. 05	1/4 inch	12 3/8 inches	1 3/8 lbs.	DANKE	4.00

Packed one in a box.

No. 7 Hand Drill



Single Speed Capacity 0 to 3/8 Inch

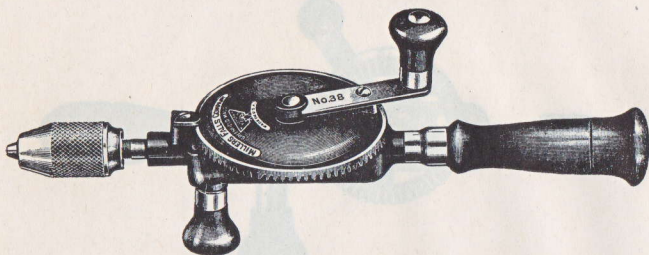
Built on a solid steel frame with steel drive and equalizing idler pinions. Two steel pinions. Large gear finished in red enamel with polished and nicked rim. Three-jawed chuck with protected springs holds 0 to 3/8 inch round shank drills. End, side and crank handles mahogany finished hardwood.

Frame and all other exposed metal parts nicely polished and nicked.

	Capacity	Length	Weight	Code	Price Each
No. 7	3/8 inch	13 1/2 inches	1 7/8 lbs.	DASHO	\$4.40

Packed one in a box.

No. 38 Hand Drill

Single Speed Capacity 0 to $\frac{3}{8}$ Inch

Built on an ebony enameled die cast frame that entirely encloses the steel pinion, giving the drill attractive, clean-cut lines. The large solid gear is finished in red enamel. Steel pinion. Cut gears. Gear ratio 4 to 1. Ball bearing spindle. Chuck has three hardened steel jaws that hold 0 to $\frac{3}{8}$ inch round shanks.

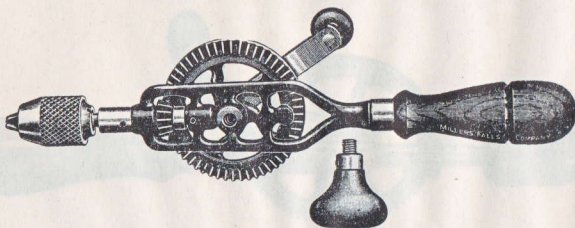
Side and crank handles mahogany lacquered hardwood. End handle hollow mahogany finished hardwood with a screw cap.

Exposed steel parts nickel plated.

	Capacity	Length	Weight	Code	Price Each
No. 38	$\frac{3}{8}$ inch	14 $\frac{7}{8}$ inches	2 $\frac{1}{4}$ lbs.	DURRO	\$3.60

Packed one in a box.

No. 1 Hand Drill

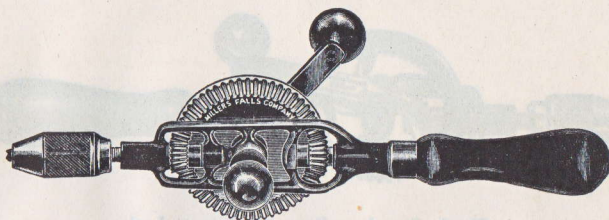
Single Speed Capacity 0 to $\frac{1}{4}$ Inch

A well-made drill with black enameled malleable frame. Hollow end handle with screw cap made of tropical hardwood. Nickeled steel chuck has three jaws with protected springs. Ball thrust bearing on spindle. Steel pinion. Large gear red enameled. Mahogany finished side and crank handles. Eight drill points, $\frac{1}{16}$ to $\frac{11}{64}$ inch in diameter, regular equipment.

	Capacity	Length	Weight	Code	Price Each
No. 1	$\frac{1}{4}$ inch	12 $\frac{1}{2}$ inches	1 $\frac{3}{4}$ lbs.	DAFNE	\$4.10

Packed one in a box.

No. 77 Hand Drill



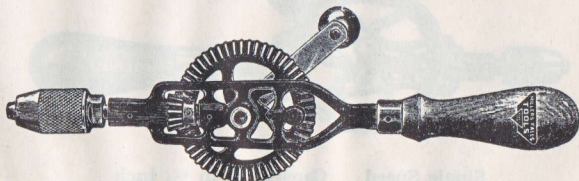
Single Speed Capacity 0 to 1/4 Inch

The addition of a new idler pinion to this drill makes it an even greater value, but without some of the refinements of the higher priced lines. Black enameled malleable iron frame. Solid large gear finished in red enamel. Nickered three-jawed steel chuck with protected springs holds 0 to 1/4 inch round shank drills. Steel pinions. Handles solid, mahogany finished hardwood.

No. 77	Capacity 1/4 inch	Length 12 1/2 inches	Weight 1 3/4 lbs.	Code DETIG	Price Each \$2.30
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Packed one in a box.

No. 85 Hand Drill



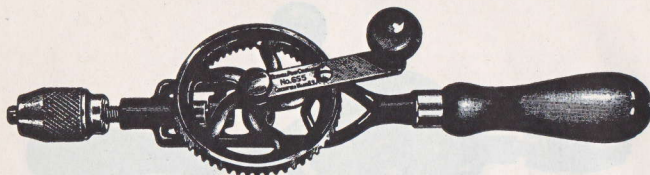
Single Speed Capacity 0 to 1/4 Inch

The black enameled frame on which this drill is built is malleable iron. The chuck has three jaws with protected springs and holds 0 to 1/4 inch round shank drills. The crank and end handle are mahogany finished hardwood. Steel pinion. Ball thrust bearing on spindle. Large gear red enameled. Other metal parts nickered.

No. 85	Capacity 1/4 inch	Length 12 1/2 inches	Weight 1 3/4 lbs.	Code DALOT	Price Each \$2.75
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Packed one in a box.

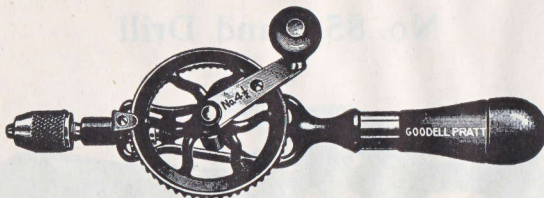
No. 655A Hand Drill

Single Speed Capacity 0 to $\frac{1}{4}$ Inch

A light, well constructed drill with a black enameled malleable iron frame, buffed mahogany lacquered hardwood end and crank handles and a three-jawed steel chuck that holds 0 to $\frac{1}{4}$ inch round shank drills. Chuck nickel plated and buffed. Steel pinion. Large gear red enameled with polished rim.

	Capacity	Length	Weight	Code	Price Each
No. 655 A	$\frac{1}{4}$ inch	12 $\frac{1}{4}$ inches	1 $\frac{1}{4}$ lbs.	ZAETH	\$1.90

Packed one in a box.

No. 4 $\frac{1}{2}$ Hand DrillSingle Speed Capacity 0 to $\frac{5}{32}$ Inch

A well balanced, light weight drill for small diameter drills. Its ease of control minimizes drill breakage.

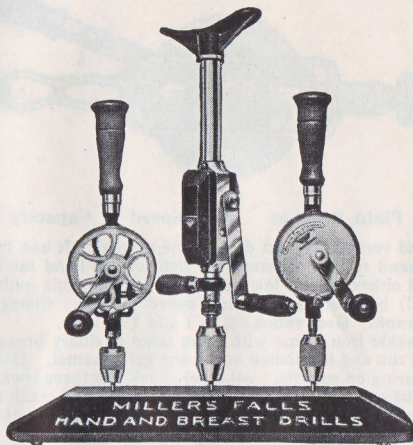
Black enameled malleable iron frame. Hollow tropical hardwood end handle with screw cap. All-steel three-jawed chuck holds 0 to $\frac{5}{32}$ inch round shank drills. Steel pinion. Large gear red enameled with polished edge.

Eight drill points, $\frac{1}{16}$ to $\frac{11}{64}$ inch in diameter, regular equipment.

	Capacity	Length	Weight	Code	Price Each
No. 4 $\frac{1}{2}$	$\frac{5}{32}$ inch	11 $\frac{1}{8}$ inches	$\frac{7}{8}$ lb.	WYFEG	\$2.80

Packed one in a box.

No. 700 Hand and Breast Drill Display

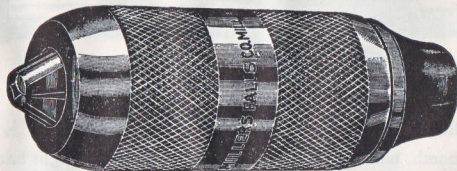


This effective display fixture is offered entirely free to the trade with a reasonable stock order for hand and breast drills. It holds any drill in our line except No. 4½.

The base, fitted with rubber feet, is solid wood finished in red and black enamel. Very little counter space is required and the drills are spaced so the view of shelf displays is not obstructed. Specify No. 700.

Illustrated in color on page 67.

No. 153 Breast Drill Chuck



The purpose of this chuck is to convert a three-jawed breast drill into a two-jawed type. It will be found especially practicable where the drilling requirements range from the use of small round shanks to the use of bit and No. 1 Morse Taper shanks, all of which it holds securely. Shank is square for convenience in tightening.

It fits the spindle of any Millers Falls or Goodell-Pratt breast drill equipped with three-jawed chuck, capacity 0 to ½ inch.

No. 153

Capacity
Universal

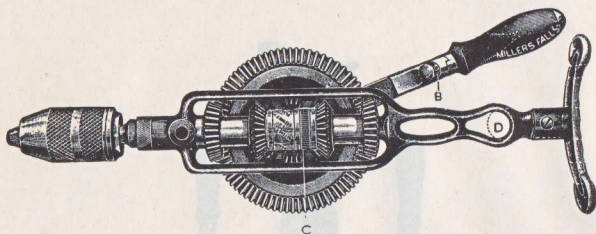
Weight
13 ozs.

Code
DILAT

Price Each
\$2.20

Packed one in a box.

No. 97 Ratchet Breast Drill



Continuous or Plain Ratchet Two Speed Capacity 0 to 1/2 Inch

The most complete and versatile breast drill on the market. It has five actions as follows: continuous right or left hand ratchet, intermittent right or left hand ratchet and positive direct drive. All five actions at either high or low speed. Ratchet actions controlled by means of the knurled sleeve (Figure C) between the two low speed pinions. Changes of speed made by sliding the knob on the crank. Gear ratios $2\frac{3}{4}$ to 1 and 1 to 1.

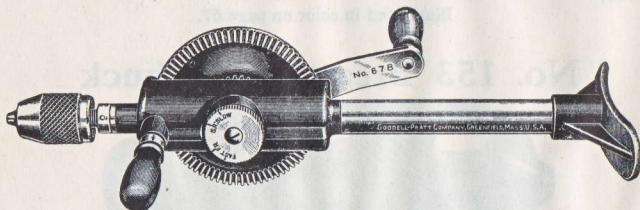
Black enameled malleable iron frame with extra large auxiliary breast plate, not illustrated. Large gear has a polished rim and is finished in red and gold enamel. Double steel pinion drive. Adjustable ball thrust bearing on spindle. All-steel chuck has three jaws with protected springs and holds round shank drills 0 to 1/2 inch in diameter. Side and crank handles mahogany finished hardwood. Steel crank. Crank handle can be used straight or at right angles.

All exposed steel parts heavily nickel plated.

	Capacity	Length	Weight	Code	Price Each
No. 97	1/2 inch	17 1/2 inches	8 1/4 lbs.	DATER	\$12.50

Packed one in a box.

No. 678 Ratchet Breast Drill



Right Hand Ratchet Two Speed Capacity 0 to 1/2 Inch

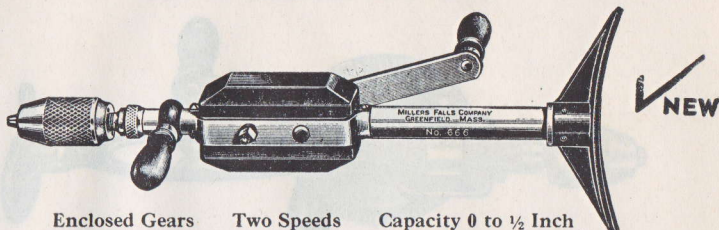
Equipped with a smooth, powerful ratchet mechanism operating right hand only at both high and low speeds. Positive action also at both high and low speed. Actions changed by turning the knurled dial on the side of the frame. Frame which entirely encloses the steel pinions is die-cast aluminum alloy finished in ebony enamel. Gear ratios $3\frac{1}{2}$ to 1 and $1\frac{1}{2}$ to 1. Large gear red enameled. Enameled aluminum breast plate attached to frame by means of a nickel-plated steel tube.

Nickel-plated steel chuck has three jaws holding 0 to 1/2 inch round shank drills. Spindle equipped with ball thrust bearing. Side and crank handles mahogany finished hardwood.

	Capacity	Length	Weight	Code	Price Each
No. 678	1/2 inch	17 1/2 inches	4 3/4 lbs.	ZAKWE	\$7.70

Packed one in a box.

No. 666 Breast Drill



Enclosed Gears Two Speeds Capacity 0 to ½ Inch

A beautiful new drill with entirely enclosed gears. Two speeds with ratios of $7\frac{1}{2}$ to 1 and $2\frac{3}{4}$ to 1 are provided. Speeds are changed by removing the knurled nut that holds the crank handle to the shaft and transferring the crank to the shaft on the opposite side of the frame.

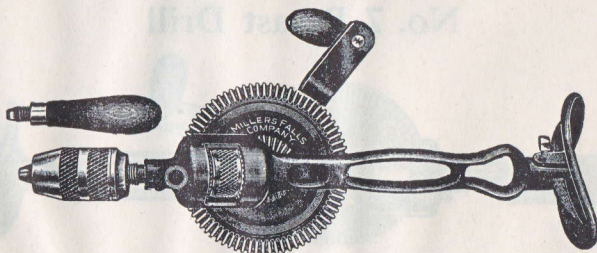
The frame is highly polished aluminum and the gear covers ebony enameled pressed steel. The aluminum breast plate is finished in ebony and red enamel and is attached to the frame by the nickel-plated steel shank. Handles are selected hardwood with a fine mahogany lacquer finish. Side handle can be quickly shifted from one side of the frame to the other without removing it.

All gears are precisely machined from solid steel blanks. The spindle is equipped with a ball thrust bearing.

The nickel-plated steel chuck has three hardened jaws actuated by protected springs holding 0 to ½ inch round shank drills.

	Capacity	Length	Weight	Code	Price Each
No. 666	0 to ½ inch	19½ inches	4½ lbs.	DAXLO	\$7.00
		Packed one in a box.			

No. 2100 Breast Drill



Two Speed Capacity 0 to ½ Inch

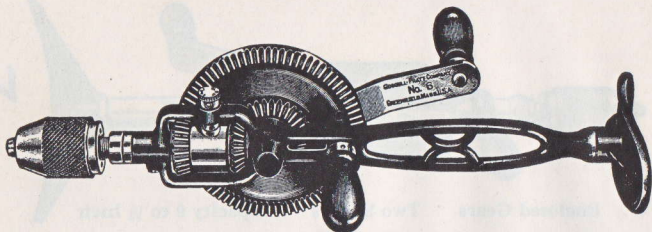
A fine two-speed drill with wholly enclosed steel pinions and quick, easy speed change accomplished by shifting the knurled sleeve between the pinions. Gear ratios 3 to 1 and 1 to 1. Idle roll to equalize large gear bearing.

Black enameled malleable iron frame. Large gear red enameled. Breast plate, and auxiliary breast plate and crank, black enameled. Nickel-plated, all-steel chuck has three jaws with protected springs and holds 0 to ½ inch round shank drills. Spindle equipped with ball thrust bearing.

Side and crank handles mahogany finished hardwood.

	Capacity	Length	Weight	Code	Price Each
No. 2100	½ inch	17½ inches	5¾ lbs.	DEARY	\$6.40
		Packed one in a box.			

No. 6A Breast Drill



Two Speed Capacity 0 to 1/2 Inch

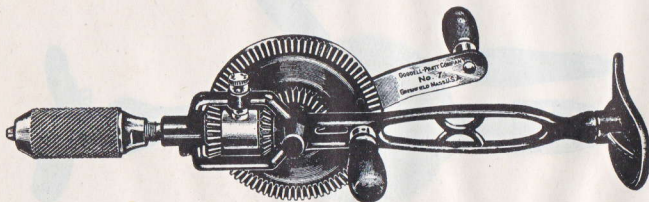
This is the world famous No. 6 Breast Drill with a ball bearing added to the spindle making it a still finer drill. The price has been dropped so low that the old No. 6 and No. 245 are eclipsed and consequently discontinued.

Black enameled malleable iron frame. Large gear is red enameled with polished edge. Ample breast plate. Two speeds with ratios of 3 1/2 to 1 and 1 1/2 to 1. Steel pinions. Polished and nickel-plated steel chuck with three jaws holds 0 to 1/2 inch round shank drills. Crank polished and nickeled.

Side and crank handles mahogany finished hardwood.

No. 6A	Capacity 1/2 inch	Length 16 inches	Weight 4 1/2 lbs.	Code WYGA	Price Each \$6.40
Packed one in a box.					

No. 7 Breast Drill



Two Speed Capacity 1/8 to 1/2 Inch Round, Bit and No. 1 M. T. Shanks

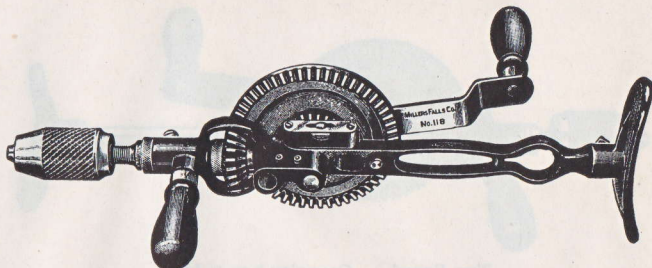
Similar to No. 6A above, but equipped with a two-jawed chuck that holds ordinary bit shank, 1/4 to 1/2 inch round and No. 1 Morse Taper shank drills.

Two speeds with ratios of 3 1/2 to 1 and 1 1/2 to 1 changed by turning the shifter knob at the side of the frame. Steel pinions. Ball thrust bearing on spindle. Large gear red enameled with polished edge. Black enameled malleable iron frame. Chuck and crank nickel plated.

Side and crank handles mahogany finished hardwood.

No. 7	Capacity Universal	Length 17 inches	Weight 4 3/4 lbs.	Code WYHHA	Price Each \$6.90
Packed one in a box.					

No. 118 Breast Drill



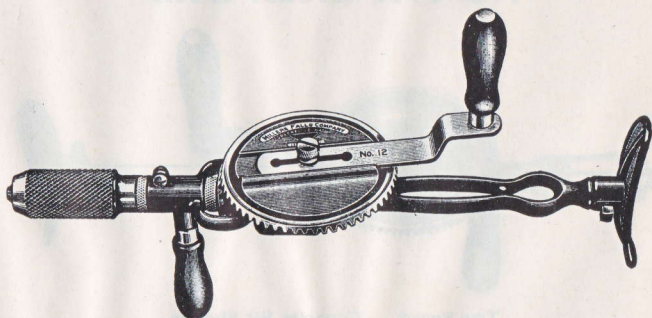
Two Speed Level Capacity 0 to ½ Inch

A sturdy, two-speed drill built on a black enameled malleable frame equipped with a well protected spirit level. Red and black enameled breast plate. Large gear red enameled with polished, nickeled and buffed edge and rim. Nickeled steel pinion. Gear ratios 3 to 1 and 1 to 1. Nickeled extensible crank. Adjustable ball bearing spindle. Nickeled three-jawed chuck with protected springs holds 0 to ½ inch round shanks. Idler roll to equalize large gear bearing. Side and crank handles mahogany finished hardwood. Breast plate red and black enameled.

All exposed metal parts nickel plated.

No. 118	Capacity Universal	Length 17½ inches	Weight 6½ lbs.	Code DEBUT	Price Each \$7.70
Packed one in a box.					

No. 12 Breast Drill



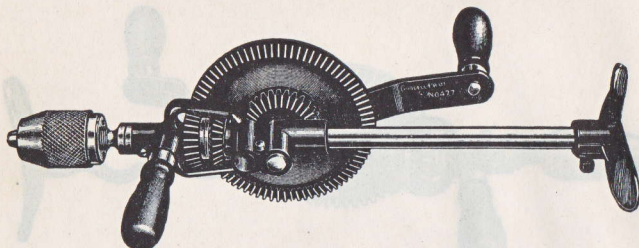
Two Speed Level

Capacity ⅛ to ½ Inch Round, Bit and No. 1 M. T. Shanks

Same sterling construction as No. 118 above, but equipped with a Master chuck holding round shank drills, ⅛ to ½ inch in diameter, bit shanks and No. 1 Morse Taper Shanks.

No. 12	Capacity Universal	Length 17½ inches	Weight 6½ lbs.	Code DEBUT	Price Each \$6.60
Packed one in a box.					

No. 0477 Breast Drill



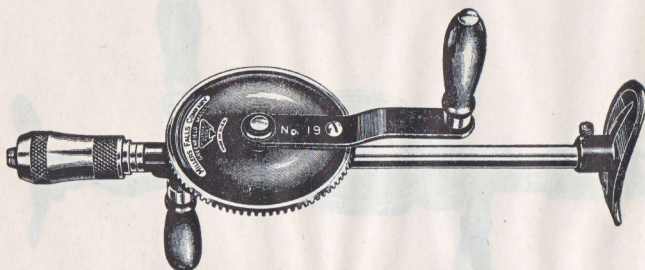
Two Speed Capacity 0 to ½ Inch

A fine, ball bearing, two-speed drill with ratios of $3\frac{1}{2}$ to 1 and $1\frac{1}{2}$ to 1 and the speed change made by unlocking the large gear shaft and transferring it to the other bearing where it is again locked. Two individual steel pinions. Sturdy black enameled frame and breast plate connected by a polished steel shank. Ball bearing spindle. Nicely polished three-jawed chuck holds 0 to ½ inch round shank drills. Crank black enameled. Side and crank handles mahogany lacquered hardwood.

No. 0477	Capacity ½ inch	Length 16½ inches	Weight 4½ lbs.	Code YOR2G	Price Each \$4.00
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Packed one in a box.

No. 19A Breast Drill



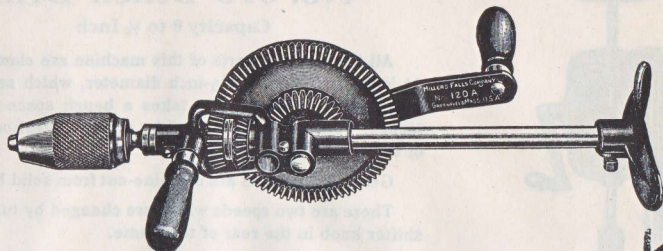
Two Speed Capacity Bit Shanks

Same construction and finish as No. 0477, but fitted with a Barber two-jawed chuck for holding bit stock shanks only.

No. 19A	Capacity Bit Shanks	Length 16½ inches	Weight 4¾ lbs.	Code DECUS	Price Each \$5.00
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Packed one in a box.

Nos. 119A and 120A Breast Drills



Two Speed Two Steel Pinions

NEW

These fine values in the medium priced field are built on strong blocked enameled frames. The breast plate is connected to the frame by a solid polished steel shank. Two speeds with ratios of 3 to 1 and 1 to 1. Large gear finished in red enamel. Ball thrust bearing on spindle. Side and crank handles mahogany finished hardwood. All exposed metal parts nicely polished.

No. 119A is equipped with a two-jawed chuck that holds $\frac{1}{8}$ to $\frac{1}{2}$ inch round and No. 1 Morse Taper shanks and regular square bit brace shanks. No. 120A is equipped with a Millers Falls three-jawed chuck with protected springs holding 0 to $\frac{1}{2}$ inch round shank drills.

	Capacity	Length	Weight	Code	Price Each
No. 119A	Universal	18 $\frac{1}{4}$ inches	5 lbs.	YEAWS	\$4.00
No. 120A	$\frac{1}{2}$ inch	16 $\frac{1}{2}$ inches	4 $\frac{5}{8}$ lbs.	DARED	4.00

Packed one in a box.

Nos. 9 and 9 $\frac{1}{2}$ Bench Drills

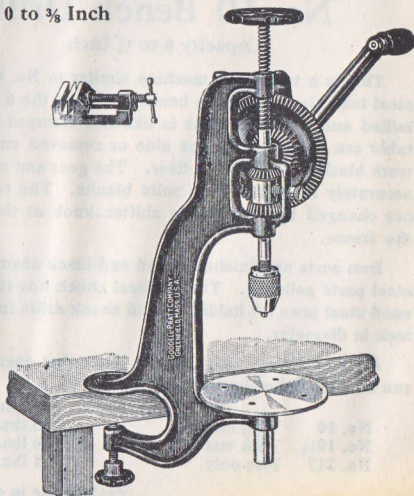
Capacity 0 to $\frac{3}{8}$ Inch

These drills are larger and heavier than the above and are equipped with a three-jawed chuck holding 0 to $\frac{3}{8}$ inch round shanks. Also equipped with two speeds changed by means of the shifter knob on the front of the frame. Hand operated screw feed. Height above bench, 18 inches.

A vise which fits the table bracket with 2 $\frac{1}{2}$ -inch jaws that open 2 inches can be supplied when specified.

Eight drill points, $\frac{1}{16}$ to $\frac{11}{64}$ inch in diameter, furnished with each machine.

Iron parts finished in red and black enamel, steel parts polished.



		Code	Price Each
No. 9	Without vise	WYIBD	\$14.00
No. 9 $\frac{1}{2}$	With vise	WYIJL	17.50
No. 217	Vise only	WYILN	3.50

Packed one in a box.

No. 675 Bench Drill

Capacity 0 to $\frac{1}{2}$ Inch

All the working parts of this machine are clamped to a 24-inch steel tube of $1\frac{1}{2}$ -inch diameter, which sets into a black enameled base that takes a bench space $8\frac{1}{2} \times 12$ inches. The feed is operated by a hand wheel on the top of the steel feed screw.

Gears and pinions are machine-cut from solid blanks.

There are two speeds which are changed by turning the shifter knob in the rear of the frame.

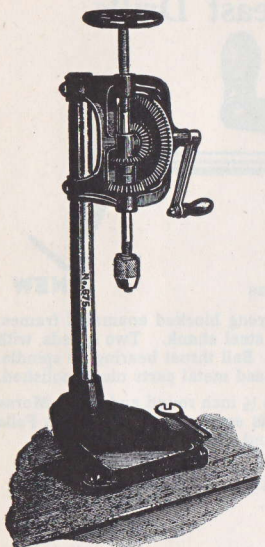
The table proper is 6×7 inches. All iron parts are finished in red and black enamel and all steel parts polished.

Each machine is fitted with an all-steel chuck that has three hardened jaws for holding round shank drills from 0 to $\frac{1}{2}$ inch in diameter.

Height above bench, $28\frac{1}{2}$ inches.

No. 675	Weight 28 lbs.	Code ZAJEV	Price Each \$20.00
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Packed one in a wooden box.



No. 10 Bench Drill

Capacity 0 to $\frac{1}{2}$ Inch

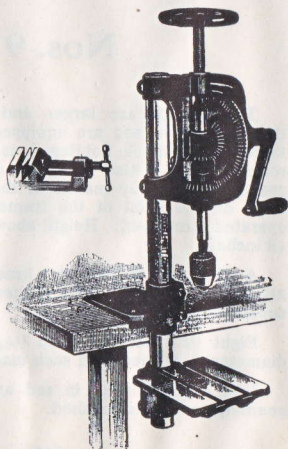
This is a two-speed machine similar to No. 675. The steel tube clamps into the bench plate and the $6 \times 6\frac{1}{2}$ inch milled and T-slotted table is likewise clamped on. This table can be swung to one side or removed entirely and work blocked up from the floor. The gear and pinions are accurately machined from solid blanks. The two speeds are changed by turning the shifter knob at the back of the frame.

Iron parts are finished in red and black enamel and all steel parts polished. The all-steel chuck has three hardened steel jaws for holding round shank drills from 0 to $\frac{1}{2}$ inch in diameter.

A No. 217 vise with $2\frac{3}{8}$ -inch jaws that open 3 inches can be supplied when wanted.

No. 10	Without vise	Weight 30 lbs.	Code WYIRT	Price Each \$25.30
No. 10 $\frac{1}{2}$	With vise	34 lbs.	WYIKE	28.80
No. 217	Vise only	4 lbs.	DEIGN	3.50

Packed one in a wooden box.



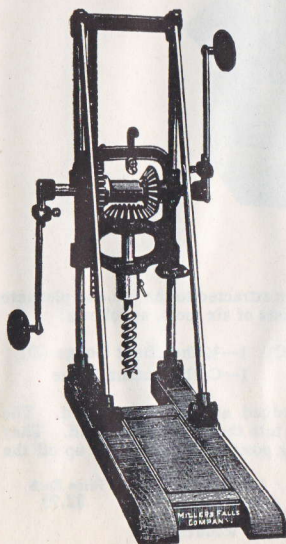
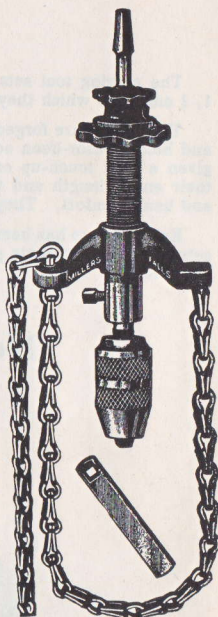
Chain Drills

An auxiliary tool for use with a breast drill or bit brace, when extra power is needed, or where pressure cannot be easily applied.

The drill is automatically fed into the work by an adjustable friction feed which is automatically regulated by the resistance the drill encounters. Drill breakage is, therefore, reduced to a minimum. Requires but a moment to adjust the chain. Reverse movement of brace withdraws drill. No intricate parts to get out of order. Hand feed can be used if desired. Four feet of stout chain with each drill. No. 719 illustrated.

	Capacity	Weight	Code	Price Each
No. 717	½-inch Flattened Round Shanks	3½ lbs.	DEDIC	\$3.90
No. 718	⅛ to ½ inch, No. 1 M.T. & Bit Shanks	4½ lbs.	DECUR	5.70
No. 719	0 to ½ inch Round Shanks	4½ lbs.	DECLP	6.00

Packed one in a box.



No. 145 Boring Machine

Designed for boring large holes in heavy timbers such as house framing, heavy construction, railroad and dock work, etc. Mechanism mounted on heavy hardwood base.

Bores vertically or at any angle within arc of 50 degrees.

Raises automatically by turning handles as in boring. Adjustable cranks regulate speed and power. Frame locks automatically at topmost point. Boring depth, 12 inches; greater depths to order.

Metal frame black enameled. Other metal parts polished. Handles mahogany finished.

We cannot supply bits for this machine. It uses standard ½-inch round machine bits.

	Boring Depth	Height	Weight	Code	Price Each
No. 145	12 inches	25 inches	28 lbs.	COBOR	\$22.00

Packed one in a wooden case.

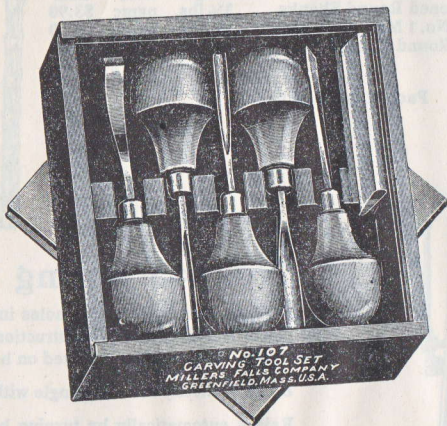
Carving Tool Line

The carving tool sets shown on the following pages supersede old Millers Falls Sets Nos. 1, 2 and 3, to which they are greatly superior in many ways.

The blades are forged from a fine quality of steel, heat-treated with the utmost care to take and hold a razor-keen edge. They are shipped with these edges nicely ground but should be given a final touch-up on a fine oilstone before using. The blades are beautifully polished their entire length and fitted with selected maple handles shaped for nicety of manipulation and hand comfort. They are finished with clear lacquer.

Extreme care has been exercised in the selection of the types of blades making up the several sets. The assortments provide the greatest scope of work possible with the number of tools involved.

No. 107 Carving Tool Set



A set designed primarily for Boy Scouts and other individuals attracted to the fun and pleasure to be derived from wood and linoleum block carving. It consists of six tools, as follows:

- | | | |
|--|--|---------------------------------------|
| 1— $\frac{3}{8}$ -inch Bent Chisel (B) | 1— $\frac{1}{4}$ -inch Skew Bevel Chisel (C) | 1— $\frac{3}{8}$ -inch Bent Gouge (D) |
| 1— $\frac{3}{32}$ -inch U Tool (E) | 1— $\frac{3}{32}$ -inch Veining Tool (F) | 1—Carborundum Stone |

The forged and carefully heat-treated blades are well edged and nicely polished. The lacquered maple handles are of a special shape that fits snugly into the palm of the hand. They are flattened on one side so that they are in the proper working position when picked up off the bench.

No. 107	Length of Tools 5 inches	Weight $\frac{3}{4}$ lb.	Code YAYOL	Price Each \$2.75
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Packed one set in lacquered lock corner, slide cover wooden box.

No. 106 Carving Tool Set

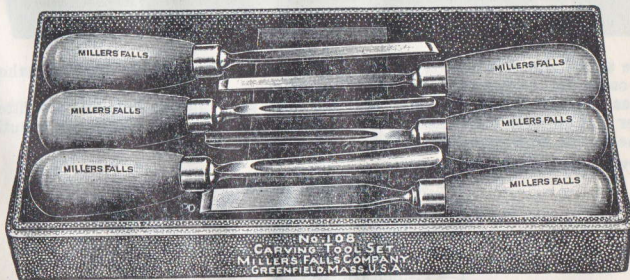
A set of six tools selected to give a wide range of operation and effects in wood and linoleum. The blades are forged from high quality steel, carefully heat-treated, nicely polished and edged. The handles, protected with nickeled ferrules, are hardwood, with a fine mahogany lacquer finish. Tools consist of 1— $\frac{5}{16}$ -inch Straight Chisel (A), 1— $\frac{3}{8}$ -inch Bent Gouge (D), 1— $\frac{3}{8}$ -inch Bent Chisel (B), 1— $\frac{3}{32}$ -inch U Tool (E), 1— $\frac{1}{4}$ -inch Skew Bevel Chisel (C), and 1— $\frac{3}{32}$ -inch Veining Tool (F).

	Length of Tools	Weight	Code	Price per Set
No. 106	6 $\frac{1}{4}$ inches	$\frac{5}{8}$ lb.	YAYNA	\$3.30

Packed in an attractively covered heavy cardboard box.



No. 108 Carving Tool Set



The blades in this set are longer and heavier and are equipped with a forged bolster that protects the handles when a mallet is used to drive the tool fitting them for considerably heavier work. They consist of the following:

One each $\frac{1}{2}$ -inch Straight Chisel (No. 1), $\frac{1}{4}$ -inch Skew Chisel (No. 4), $\frac{7}{16}$ -inch Gouge (No. 7), $\frac{1}{4}$ -inch Gouge (No. 5), $\frac{1}{4}$ -inch Straight Chisel (No. 9), and V Tool (No. 3).

Blades carefully edged and nicely polished. Natural lacquered maple handles.

	Length of Tools	Weight	Code	Price per Set
No. 108	8 inches	1 $\frac{1}{2}$ lbs.	YAYRE	\$5.00

Each set packed in a heavy cardboard box with an attractive imitation red leather cover.

No. 109 Carving Tool Set



A de luxe set of nine fine chisels packed in a substantial, beautifully finished mahogany box with hinged cover that serves as a permanent container.

The blades, hammer forged from the finest tool steel, are 4 inches long and are fitted with a forged bolster that protects the handle when a mallet is used. The blades are beautifully polished and the cutting edges carefully honed.

The following tools make up the set:

- 1— $\frac{1}{2}$ -inch Straight Chisel (No. 1)
- 1— $\frac{1}{4}$ -inch Straight Chisel (No. 9)
- 1— $\frac{7}{16}$ -inch Gouge (No. 7)
- 1— $\frac{1}{2}$ -inch Gouge (No. 8)
- 1— $\frac{1}{4}$ -inch Gouge (No. 5)
- 1— $\frac{1}{4}$ -inch Curved Gouge (No. 2)
- 1— $\frac{1}{4}$ -inch Skew Chisel (No. 4)
- 1— $\frac{3}{8}$ -inch Bent Chisel (No. 6)
- 1— $\frac{1}{4}$ -inch V Tool (No. 3)

The handles, protected with nicked ferrules, are natural lacquered maple. Their shape insures ease and comfort in use.

No. 109	Length of Tools 8 inches	Weight Set 2 $\frac{3}{4}$ lbs.	Code YAYTI	Price per Set \$8.00
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Packed one set in a box.

SCRAPERS



**GOODELL
PRATT**
1500 GOOD TOOLS

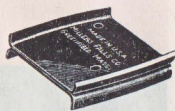
**MILLERS FALLS
TOOLS**
SINCE
1868

Double Value Scrapers

Finer performance and easier operation due to the new curved blades and the double value due to twice the usual number of scraping edges make this new line of Millers Falls Scrapers the choice of toolwise craftsmen everywhere.

The blades are made of fine quality steel, slightly curved and machine-ground and honed, giving the finest scraping edge yet produced on this type of tool. In most models the blades are reversible, with two finished scraping edges at each end.

The handles, shaped for comfort, are made of white birch finished with clear lacquer with a distinctive green tip.



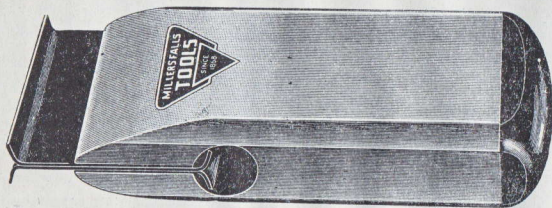
No. 3900 Scraper Display

Illustrated in color on the preceding page, this is one of the most productive displays we have ever offered. In many instances it has doubled and trebled scraper sales.

The bright red, gold and black background sets off the natural wood handles with their green tip to excellent advantage and shows the detail of the new curved blades as well. The complete line is shown in a very small space. The display is 16 inches high and 18 inches long with a 4½-inch base.

This fixture is supplied without charge with a reasonable stock order of scrapers. The tools mounted on the display, with a list price value of \$3.85, are considered part of the stock order.

Nos. 34 and 35 Wood Scrapers



Four Curved Scraping Edges

The handles on these scrapers are of the block type making them easy to operate with one or two hands.

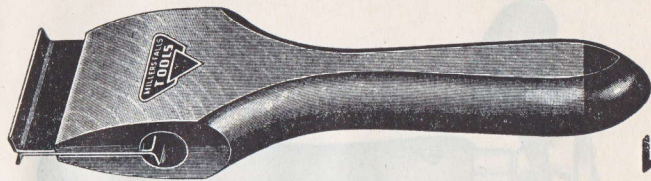
The blades are curved and have four scraping edges. Made of fine quality tool steel automatically ground and honed.

Hardwood handles finished in natural lacquer with green tip.

	Width Blade	Length	Weight	Code	Price Each
No. 34	2½ inches	5 inches	5 OZS.	YOOLU	\$0.50
No. 35	1½ inches	5 inches	3½ OZS.	YOOMA	.30
No. 346	Extra Blades for No. 34			YOONY	.35
No. 356	Extra Blades for No. 35			YOOP	.20

Packed six in a box.

Nos. 39 and 51 Wood Scrapers



✓ NEW

Four Curved Scraping Edges

The new paint brush type handle with which these scrapers are equipped greatly facilitates any scraping operation as it provides ample room to apply pressure and a sure comfortable grip in exerting the necessary pull.

They are equipped with new improved curved blades that give a finer surface with less effort. Each blade has four scraping edges. Two are always ready for use and the other two quickly available by simply reversing the blade in the handle.

The selected hardwood handles are nicely finished in clear lacquer with a green tip.

	Width of Blade	Length	Weight	Code	Price Each
No. 39	2½ inches	8¾ inches	7 ounces	YADAT	\$0.50
No. 51	1½ inches	7½ inches	4 ounces	YAFVA	.30
No. 346	Extra Blades for No. 39			YOONY	.35
No. 356	Extra Blades for No. 51			YOOP1	.20

Packed six in a box.

No. 53 Wood Scraper

Four Curved Scraping Edges

✓ NEW

A new type handle that permits the use of two hands on heavy work. Blade is 2½ inches wide with four curved cutting edges. Blade easily reversible. Handle clear lacquer, with green tip.

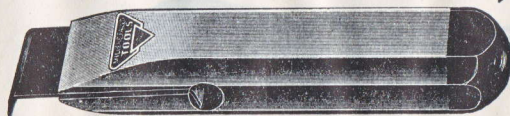
	Width Blade	Height	Weight	Code	Price Each
No. 53	2½ inches	5 inches	3 ozs.	YAGAM	\$0.50
No. 346	Extra Blades			YOONY	.35

Packed three in a box.



No. 41 Narrow Scraper

✓ NEW



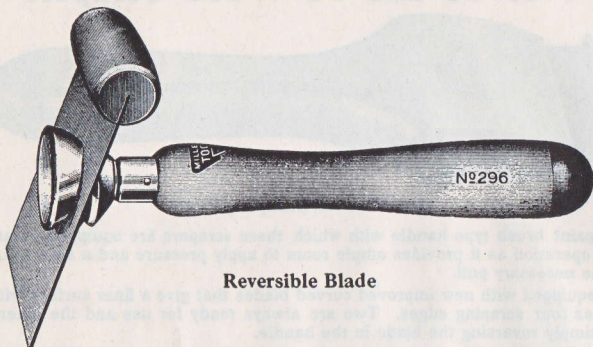
Two Curved Scraping Edges

A narrow tool for lighter work in out-of-the-way places. Fitted with a curved blade with two scraping edges 1 inch wide. Blade reversible. The hardwood handle is finished in clear lacquer, with green tip.

	Width Blade	Length	Weight	Code	Price Each
No. 41	1 inch	5 inches	1 oz.	YADRO	\$0.20
No. 366	Extra Blades			YOONY	.10

Packed six in a box.

No. 296 Floor Scraper



Reversible Blade

This new scraper has a very quick, positive adjustment of the blade. It is equipped with a practical ball joint that permits setting the blade at a wide range of angles and pitches by simply loosening and tightening the handle.

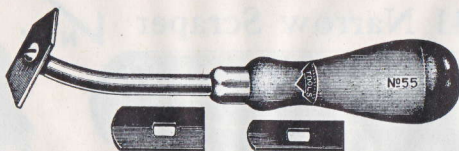
The blade, which is reversible so all four edges can be used, is made of finest quality tool steel, 3 x 4½ inches, hardened and tempered to hold the ideal scraping edge.

A large, well shaped blade handle is provided to which ample pressure can be applied without discomfort. Both handles are turned from selected hardwood and have a fine mahogany lacquer finish.

	Width	Length	Weight	Code	Price Each
No. 296	3 inches	9⅞ inches	¾ lb.	YICOM	\$1.20
No. 376 Extra Blades				YOC AJ	.25

Packed one in a box.

No. 55 Wood Scraper

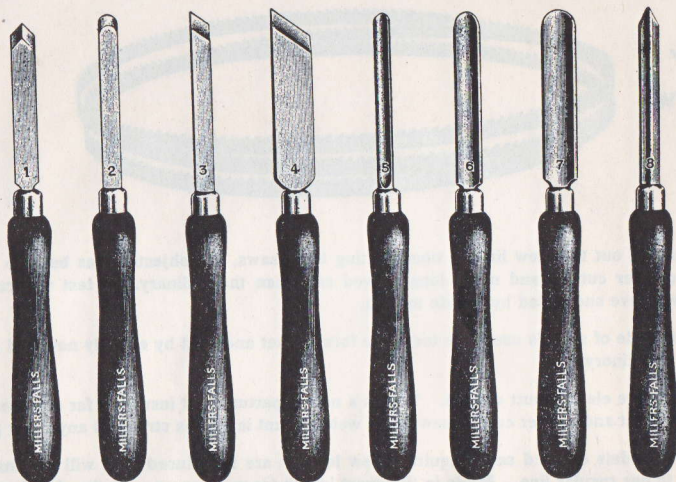


A new scraper with three interchangeable blades that give three flat scraping edges, ¼ inch, ½ inch and ¾ inch wide, two curved edges, ¼ inch and ¾ inch wide, and one V edge. These permit doing a delicate job of scraping in small spaces that cannot be reached with the ordinary tool. Particularly useful in refinishing antiques, removing paint from glass, moldings, etc.

	Card	Weight	Code	Price Each
No. 55	4 x 7 inches	3 ozs.	YAGPI	\$0.35

Packed six in a box.

Nos. 1 to 8 Turning Tools



Full size, heavy tools that are essential to the best results, especially on work of the more pretentious kind. The blades are forged from a fine quality of tool steel. The heavy tangs are solidly seated in long, smooth, finely finished handles that can be used for hours without undue fatigue and allow two-hand control.

The blades are individually heat-treated to take and hold a keen edge. The edges are ground and honed ready for use and the rest of the blade is nicely polished. Handles are hardwood with a mahogany lacquer finish.

Blades of Nos. 4 and 7 are 6 inches long and with handles are 14¼ inches long overall. Blades on all other numbers are 4¾ inches long and with handles are 13 inches overall.

Complete sets are packed in a handsome box that is also a display unit.

	Type	Code	Price Each
No. 1	Spear Point	WYBHA	\$0.75
No. 2	Round Nose Chisel	WYCHY	.75
No. 3	½-inch Skew Chisel	WYDGE	.75
No. 4	1-inch Skew Chisel	WYEXO	.95
No. 5	¼-inch Gouge	WYFIX	.75
No. 6	½-inch Gouge	WYGJA	.75
No. 7	¾-inch Gouge	WYGYW	.95
No. 8	Parting Tool	WYHMA	.80

No. 1188

Set of one each Nos. 1 to 8

ZISOX

6.35

Packed six in a box or one set in a box.

Woodworking Band Saws



In bringing out this new line of wood cutting band saws, our objective has been to offer a sharper, cleaner cutting and much longer lived saw than the ordinary. A test will convince you that we have succeeded by a wide margin.

A finer grade of steel is used, the teeth are formed, set and filed by entirely new and greatly improved machinery.

The ends are electric butt welded. This is a new departure that insures a far stronger joint, a smoother joint and a truer cutting saw. The welded joint is just as strong as any other part.

As new models of band saws requiring new lengths are introduced they will automatically be added to our regular line. Made in the exact length for most every workshop band saw and all widths in most lengths. Made of 26 gauge steel. Specify number, length and width.

	Length	Widths, Inches	Make of Machine	Price Each
No. 1041	4 feet 1½ inches	⅛-⅜-1¼	Power King 8 inch—Shaw 8 inch	\$1.00
No. 1046	4 feet 6 inches	⅛-⅜-1¼	Superior 8 inch—Wallace No. 34	1.00
No. 1048	4 feet 8 inches	⅛-⅜-1¼-¾	Wood Wizard 9 inch	1.00
No. 1051	5 feet 1½ inches	⅛-⅜-1¼-¾	Driver 10 inch	1.00
No. 1056	5 feet 6 inches	⅛-⅜-1¼-¾-1½	Delta 10 inch	1.00
No. 1065	6 feet 5½ inches	⅛-⅜-1¼-5/16-¾-1½	Driver 12 inch—Delta 12 inch—H & A No. 11—B C 12 inch—Hutchinson 12 inch—Superior 12 inch—Ephrata 12 inch—Champion 12 inch—Duro 12 inch—Power King 12 inch	1.00
No. 1067	6 feet 7 inches	3/16-¼-5/16-¾-1½	Wood Wizard 12 inch	1.00
No. 1072	7 feet 2 inches	3/16-¼-5/16-¾-1½	H & A 14 inch—Utility 12 inch—Wood- working 14 inch	1.05
No. 1076	7 feet 6 inches	3/16-¼-5/16-¾-1½	B C 14 inch—Parks 14 inch—H & A No. 50—Wallace No. 40—S & B 12 inch	1.10
No. 1079	7 feet 9½ inches	3/16-¼-5/16-¾-1½	Delta 14 inch	1.10
No. 1085	8 feet 5 inches	3/16-¼-5/16-¾-1½	H & A No. 14—S & B 16 inch	1.20
No. 1096	9 feet 6¾ inches	⅛-1¼	Driver 16 inch	1.30
No. 1096	9 feet 6¾ inches	1½-¾	Driver 16 inch (24 Gauge)	1.50

Packed one saw in a box.

Workshop Accessories



Point Centers



Cup Centers



Spur Centers



Made from a good quality of tool steel carefully hardened. Points (60°) and taper shanks accurately ground and well finished.

Sharp hardened points with deep machined cups. Accurately ground shanks. Diameters of cups, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{5}{8}$ inch.

Sharp points and keen machined hardened spurs that assure a positive drive. Accurately ground taper shanks. Diameters of heads, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch.

	M. T. Shank	Price Each
No. 117	No. 1	\$0.75
No. 84	No. 2	.80

	M. T. Shank	Price Each
No. 94	No. 0	\$0.70
No. 105	No. 1	.75
No. 96	No. 2	.80

	M. T. Shank	Price Each
No. 116	No. 0	\$0.70
No. 114	No. 1	.75
No. 86	No. 2	.80

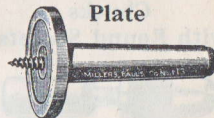
Taper Arbors



Morse Taper Sleeve



Screw Face Plate



Arbors hardened, accurately ground to fit the special sockets of $\frac{1}{2}$ -inch Jacobs No. 33 Keyed Chucks, No. 121 Collet Chuck and No. 151 Shaper Adapter. Taper shanks hardened and accurately ground.

An adapter for using No. 1 M.T. Shanks in a No. 2 M.T. Socket. Accurately ground socket and shank. Provided with drift slot for loosening No. 1 M.T. Shank.

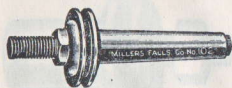
Fits live spindles with No. 2 M.T. Socket. Screw center holds blocks securely for turning face and edges. Diameter of plate, 2 inches. Length of screw, $\frac{1}{2}$ inch.

	M. T. Shank	Price Each
No. 119	No. 1	\$0.75
No. 98	No. 2	.80

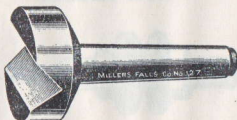
	M. T. Shank	Price Each
No. 152	No. 2 to No. 1	\$0.80

	M. T. Shank	Price Each
No. 113	No. 2	\$1.30

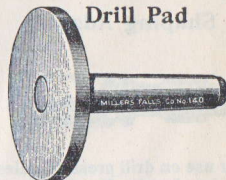
Wheel Arbors



Crotch Center



Drill Pad



Diameter of arbors between flanges, $\frac{1}{2}$ inch. Maximum distance between flanges, 1 inch. Fitted with accurately ground M.T. Shanks.

For use in tail stock for holding round, hexagon and other shaped rods for drilling. Diameter of plate, 2 inches. No. 2 M.T. Shank.

Placed in the tail stock of a lathe, this accessory makes a firm back for drilling under power from the live spindle. Diameter, $\frac{3}{8}$ inches. Fitted with No. 2 M.T. Shank.

	M. T. Shank	Price Each
No. 164	No. 1	\$1.05
No. 102	No. 2	1.15

	M. T. Shank	Price Each
No. 127	No. 2	\$1.30

	M. T. Shank	Price Each
No. 140	No. 2	\$1.30

All accessories shown above packed one in a box.

Workshop Accessories



NEW Chucks with M.T. Shanks



Smoothacting chuck with three hardened jaws for holding 0 to 1/2-inch round shanks. Fitted with accurately ground M.T. Shanks.

	M. T. Shank	Price Each
No. 111	No. 1	\$2.10
No. 103	No. 2	2.10

Chuck with Round Shank



Three hardened jaws that hold 0 to 1/2-inch round shanks. 1/2-inch straight, accurately ground round shank. Nicely polished finish. Knurled grip.

	Capacity	Price Each
No. 163	1/2"	\$1.30

Chucks without Shanks



Three hardened steel jaws for holding 0 to 1/2-inch round shanks. Fit 1/2-inch-24 thread arbors as on Nos. 123 1/2, 123 3/8, 102 and 104.

	Finish	Price Each
No. 148	Ground	\$0.95
No. 147	Polished	1.05

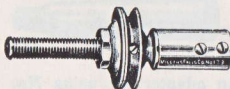
Chucks with Round Sockets



Smooth running, three-jawed keyless chucks with arbors to fit on round shafts of small motors, etc.

	Shaft	Cap.	Price Each
No. 837	1/4"	5/32"	\$1.55
No. 757	3/8"	1/4"	1.55
No. 761	1/2"	3/8"	1.80
No. 863	1/2"	1/2"	1.90
No. 861	5/8"	1/2"	2.00

Work Arbors



Fitted with set of collars for grinding or buffing wheels up to 1/2 inch with 1/2-inch holes and a two-step pulley for round belts. Shanks fit straight round spindles.

	Fitting	Price Each
No. 123 1/2	1/2" Spindle	\$0.65
No. 123 3/8	5/8" Spindle	.65

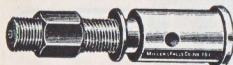
Arbors with Chucks



A combination of 1/2-inch capacity three-jawed chuck, a set of collars for holding wheels with 1/2-inch holes and a two-step pulley for driving round belts. Shanks fit round spindles.

	Fitting	Price Each
No. 122 1/2	1/2" Spindle	\$1.15
No. 122 3/8	5/8" Spindle	1.15

Shaping Adapter



For use on drill press spindles having Jacobs No. 33 Chuck Tapers and Nos. 98 and 119 Arbors to permit use of shaper cutters with 1/2-inch hole. Drift key provided.

	Price Each
No. 151	\$1.15
No. 159 Extra Nut	.15

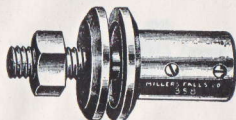
Wheel Arbors



Fitted with plain round shanks for use in three-jawed chucks of electric drills, etc. Accommodates wheels up to 1 inch wide with 1/2-inch hole.

	Shank	Price Each
No. 129	1/4" Shank	\$0.65
No. 322	1/2" Shank	.85

Wheel Arbors



Large steel flanges. Hardened tightening nut. Sockets fit straight round shafts. Two headless set screws.

	Shaft	Wheel Width	Hole	Price Each
No. 838	1/4"	3/8"	3/8"	\$1.15
No. 758	3/8"	1/2"	3/8"	1.15
No. 858	1/2"	3/4"	1/2"	1.25
No. 868	3/4"	3/4"	1/2"	1.35

Workshop Accessories

NEW

Collet Chuck



Chuck fitted with $\frac{5}{16}$ -inch collet and $\frac{1}{4}$ -inch bushing. Socket fits Jacobs No. 33 Taper Arbor and Nos. 98 and 119 Arbors.

Price Each
No. 121 \$1.15

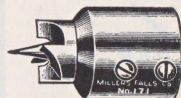
Cup Centers



Sharp, hardened point and deep cup. Socket fits round tail-stock spindles. Diameter of cup, $\frac{5}{8}$ inch. Two set screws.

	Fitting	Price Each
No. 79 $\frac{1}{2}$ "	$\frac{1}{2}$ " Spindle	\$1.05
No. 79 $\frac{3}{8}$ "	$\frac{3}{8}$ " Spindle	1.05

Spur Centers



Sharp, hardened point and keen, deep spurs. Socket fits round live spindles. Diameter of head, $\frac{3}{4}$ inch. Two set screws.

	Fitting	Price Each
No. 171 $\frac{1}{2}$ "	$\frac{1}{2}$ " Spindle	\$1.05
No. 171 $\frac{3}{8}$ "	$\frac{3}{8}$ " Spindle	1.05

Shaft Coupling



A rigid coupling for $\frac{1}{2}$ -inch line shafting. Headless set screws.

Price Each
No. 51 \$0.30

$\frac{1}{4}$ -Inch Chuck



Fitted with three hardened jaws for holding 0 to $\frac{1}{4}$ -inch round shanks. Shank fits $\frac{1}{2}$ -inch-24 thread spindles.

	Capacity	Price Each
No. 144	$\frac{1}{4}$ "	\$0.40

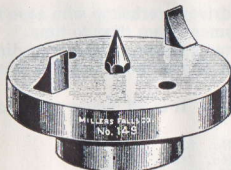
Collet Chuck



Equipped with $\frac{5}{16}$ -inch collet. Shank fits $\frac{1}{2}$ -inch-24 thread spindle.

Price Each
No. 156 \$0.80

Face Plate



Three-inch face plate fitting $\frac{3}{4}$ -inch-16 thread spindle. Hardened interchangeable screw and point centers and pair of hardened spurs that can be located at two different distances from the center for driving large wood blocks.

Price Each
No. 149 \$1.55

Shaper Cutter Arbor



For driving small shaper cutters with $\frac{5}{16}$ -inch holes. Straight shank $\frac{5}{16}$ -inch diameter fits three-jawed chucks and Nos. 156 and 121 Chucks.

	Price Each
No. 158	\$0.50
No. 159 Extra Nut	15

Shaper Collars



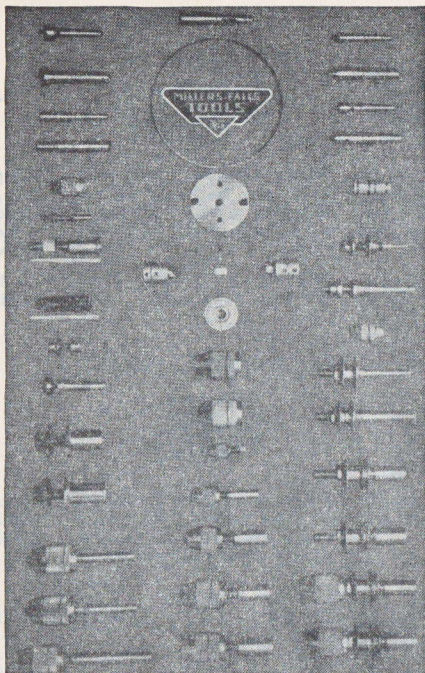
Six collars fitting $\frac{1}{2}$ -inch spindle to control depth of cut. Outside diameters, $\frac{19}{32}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, and $1\frac{3}{4}$ inches. Width, $\frac{7}{16}$ inch.

Price Each
No. 157 per set \$1.45

All accessories shown above packed one in a box.

No. 3050 Workshop Accessory Display

✓
NEW



This display is a magnet to every craftsman operating a power driven workshop who sees it. It sells quantities of these small accessories that are added to equipment from time to time.

The items on the board are a representative assortment of the tools shown on the preceding pages. No charge whatsoever is made for the well finished panel or the mounting, the price representing the regular price of the items displayed only.

The panel is made of five-ply veneer finished in hardware orange. It is 36 inches wide and 22 inches high and holds the following accessories:

No. 1041	¾-inch Band Saw	No. 322	Wheel Arbor	No. 838	Arbor
No. 96	Cup Center	No. 158	Cutter Arbor	No. 758	Arbor
No. 105	Cup Center	No. 151	Shaping Adapter	No. 858	Arbor
No. 86	Spur Center	No. 159	Cutter Nut	No. 868	Arbor
No. 114	Spur Center	No. 121	Collet Chuck	No. 144	Keyless Chuck
No. 84	Point Center	No. 152	M. T. Sleeve	No. 148	Keyless Chuck
No. 117	Point Center	No. 79 ⁵ / ₈	Cup Center	No. 147	Keyless Chuck
No. 98	Taper Arbor	No. 171 ⁵ / ₈	Spur Center	No. 163	Chuck
No. 119	Taper Arbor	No. 122 ¹ / ₂	Work Arbor	No. 156	Collet Chuck
No. 102	Wheel Arbor	No. 122 ⁵ / ₈	Work Arbor	No. 149	Face Plate
No. 164	Wheel Arbor	No. 837	Drill Chuck	No. 51	Coupling
No. 103	Chuck	No. 757	Drill Chuck	No. 157	Shaper Collar
No. 111	Chuck	No. 761	Drill Chuck	No. 123 ¹ / ₂	Work Arbor
No. 129	Wheel Arbor	No. 863	Drill Chuck	No. 123 ⁵ / ₈	Work Arbor
		No. 861	Drill Chuck		

No. 3050 Display Complete.

Packed one in a wooden box.

Price, each \$46.15

No. 813 Oval Blade Burnisher



The highly polished blade of this tool is oval in shape, with a nicely pointed end. It is 4 inches long, carefully hardened, and set in a comfortable polished hardwood handle protected by a nickel-plated ferrule.

The shape of the blade, with its smooth, convex point, makes it possible to do a great variety of fine burnishing with this tool. Also makes a fine scraper steel.

No. 813	Blade 4 inches	Length Overall 7 $\frac{3}{4}$ inches	Weight 3 ozs.	Code ZEJDO	Price Each \$0.80
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Packed six in a box.

No. 42 Coping Saw Frame



This is our most improved frame and is unsurpassed for ease of operation and convenience in sawing under all conditions. Ball bearings located under the outer head permit free action of the blade and insure its constant alignment. The frame can be set to swing free regardless of the direction the blade takes in sawing. A circle can be cut out without stopping to adjust it.

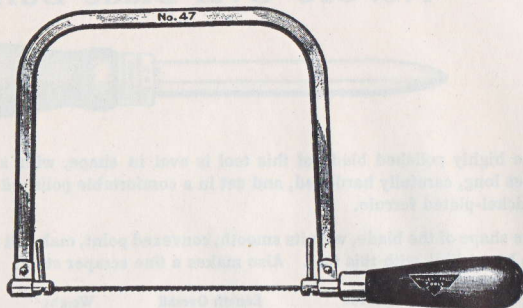
By means of locking devices at both ends of the blade, it can be locked rigid in the frame facing in any one of four directions. Holds both Nos. 60 and 65 blades. Three No. 60 blades with each frame.

Frame of heavy steel wire, polished and nickel plated. Stained hardwood handle.

No. 42	Depth Throat 4 $\frac{1}{8}$ inches	Weight 7 ozs.	Code IRADE	Price Each \$1.80
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Packed three in a box.

Nos. 43 and 47 Coping Saw Frames



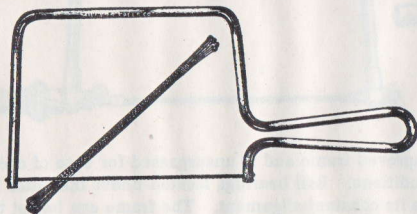
These fine frames are identical except for their depth of throat. The frame is made of $\frac{3}{16} \times \frac{3}{8}$ inch round edge spring steel. The studs are designed for holding 6 or $6\frac{1}{2}$ inch coping saw blades of the loop, pin and other types. The pins set firmly in the studs permit the blade to be turned in any desired direction. Tension on the blade is controlled by turning the mahogany lacquered hardwood handle. One No. 65 blade furnished with each frame.

All exposed metal parts heavily nickel plated and buffed.

	Depth Throat	Weight	Code	Price Each
No. 43	$4\frac{3}{4}$ inches	6 OZS.	IRIAN	\$0.90
No. 47	$6\frac{1}{2}$ inches	9 OZS.	IRITO	1.10

No. 47 packed four in a box; No. 43 packed six in a box.

Nos. 38 and 44 Coping Saw Frames



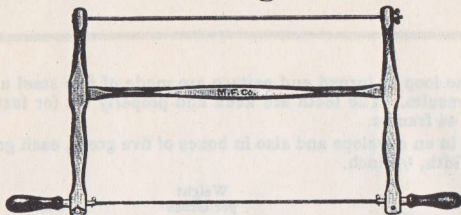
These are low priced but serviceable frames made of stiff round steel stock, $\frac{1}{4}$ inch in diameter, that affords ample tension for the blade. Blades are faceable in four directions.

Holds Nos. 50 and 60 blades.
No. 44 is regularly equipped with one No. 50 blade in the frame and one dozen extra blades.
No. 38 is regularly equipped with one No. 50 blade in the frame only.

	Depth Throat	Weight	Code	Price Each
No. 38	4 inches	4 OZS.	IRAAT	\$0.20
No. 44	4 inches	5 OZS.	IRISH	.30

Packed six in a box.

No. 357 Turning Saw Frame



This frame is made of birch wood, which is particularly adapted for web saws because it is light, yet strong. Blades held by steel pins, strained by thumb nut on the steel tension rod. Friction on handles regulated by screws. Steel tension rod. Handles stained. Depth, $7\frac{1}{4}$ inches. One blade furnished with each frame.

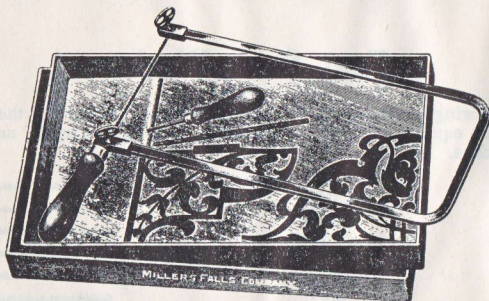
	Blade	Weight	Code	Price Each
No. 357	14 x $\frac{3}{16}$ inches	1 $\frac{3}{8}$ lbs.	INLAY	\$2.00
No. 357	18 x $\frac{3}{16}$ inches	1 $\frac{5}{8}$ lbs.	INLET	2.10
No. 357	24 x $\frac{3}{16}$ inches	1 $\frac{7}{8}$ lbs.	INMEW	2.40

Packed one in a box.

Turning Saw Blades

	Width	Weight per Dozen	Code	Price per Dozen
14 inches	$\frac{3}{16}$ inch	5 ozs.	INNER	\$4.00
18 inches	$\frac{3}{16}$ inch	6 ozs.	INNOX	5.00
24 inches	$\frac{3}{16}$ inch	9 ozs.	INNOF	7.00

No. 2 Fret Saw Set

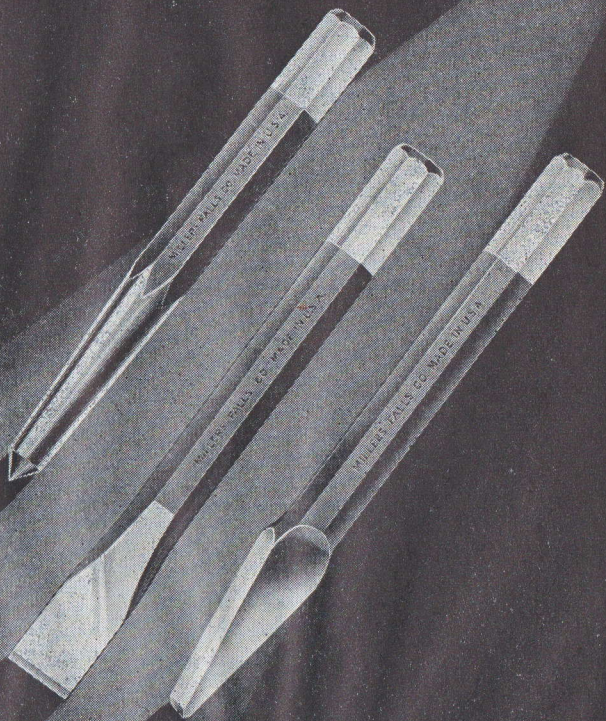


An excellent set for amateurs. The frame is of high grade spring steel, with enameled handle, and patent clamps, which hold the blade securely. Frame has depth of 12 inches, width of 5 inches, and is highly polished and nickel plated. Other articles include twelve blades, one awl, one sheet of impression paper and three sheets of designs.

No. 2	Throat	Weight	Code	Price per Set
	12 inches	17 ozs.	ITIVE	\$1.90

Packed one set in a box.

FORGED TOOLS



**GOODELL-
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**
SINCE
1868

Cold Chisels



The chisels and punches shown on this and the following page are hammer-forged from a high grade of octagon alloy steel selected for its extreme toughness. The care exercised in heat-treating results in a uniformly high grade chisel. The blades and heads are ground and nicely polished. The heads have a distinctive vermilion lacquer finish.

	Width of Blade	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1150	1/4 inch	1/4 inch	5 inches	12	ZUKER	\$2.60
No. 1152	5/16 inch	1/4 inch	5 inches	12	ZAZYR	2.75
No. 1154	3/8 inch	3/8 inch	5 inches	12	YOONY	3.05
No. 1156	1/2 inch	3/8 inch	5 inches	12	YOOLV	3.25
No. 1158	5/8 inch	1/2 inch	6 1/2 inches	6	YUZYR	5.50
No. 1160	3/4 inch	5/8 inch	7 inches	6	ZABAM	7.35
No. 1162	7/8 inch	3/4 inch	7 1/2 inches	3	ZABIP	10.50
No. 1164	1 inch	1 inch	8 inches	3	ZEAHY	12.60
No. 1166	1 1/8 inches	1 inch	8 1/2 inches	3	ZUKTO	14.70

Long Cold Chisels

Same as the chisels above but longer.

	Width of Blade	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1170	5/8 inch	1/2 inch	10 inches	3	ZUKWY	\$7.55
No. 1172	3/4 inch	5/8 inch	12 inches	3	ZULIT	10.50
No. 1174	7/8 inch	3/4 inch	14 inches	3	ZULRA	16.80

Cape Chisels



	Width of Blade	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1140	1/8 inch	3/8 inch	5 inches	12	YOORC	\$3.70
No. 1141	3/16 inch	3/8 inch	5 inches	12	ZEENG	4.10
No. 1142	1/4 inch	3/8 inch	5 inches	12	YOOPZ	4.50
No. 1143	5/16 inch	1/2 inch	6 inches	6	ZEEPH	6.10
No. 1144	3/8 inch	5/8 inch	7 inches	6	ZEERK	8.20
No. 1145	1/2 inch	3/4 inch	7 1/2 inches	6	ZEERP	11.30

Square Chisel



	Width of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1176	5/32 inch	3/8 inch	5 inches	12	YOOSD	\$2.80

Diamond Point Chisels



	Width of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1178	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	5 inches	12	YO0VG	\$2.80
No. 1180	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch	6 inches	6	ZULVO	5.25
No. 1182	$\frac{3}{8}$ inch	$\frac{3}{4}$ inch	7 inches	6	ZUMAS	7.35
No. 1184	$\frac{1}{2}$ inch	$\frac{3}{4}$ inch	8 inches	6	ZUMIV	10.50

Round Nose Cape Chisels



	Width of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1190	$\frac{1}{8}$ inch	$\frac{3}{8}$ inch	5 inches	12	ZUMTE	\$3.65
No. 1191	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch	6 inches	6	YOPAV	6.10
No. 1192	$\frac{3}{8}$ inch	$\frac{5}{8}$ inch	7 inches	6	ZUMUX	8.20
No. 1193	$\frac{1}{2}$ inch	$\frac{3}{4}$ inch	8 inches	6	ZUMWO	11.35

Center Punches



	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1202	$\frac{3}{8}$ inch	5 inches	12	YOPUB	\$2.80
No. 1204	$\frac{1}{2}$ inch	5½ inches	6	ZUNOY	4.60
No. 1206	$\frac{5}{8}$ inch	6 inches	6	ZUNTA	5.05

Prick Punches



	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1199	$\frac{3}{8}$ inch	5 inches	12	YOPOZ	\$2.80
No. 1201	$\frac{1}{2}$ inch	6 inches	6	ZUNEV	5.05

Aligning or Drift Punches



The points of these punches have a long even taper and a very high polished mirror finish so that they drive easily in tight fits. Will not bend or break. Indispensable for automotive work and assembling structural steel.

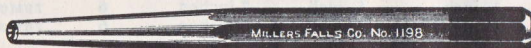
	Diameter of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1208	$\frac{3}{16}$ inch	$\frac{1}{2}$ inch	10 inches	3	ZUNUZ	\$7.55
No. 1210	$\frac{1}{4}$ inch	$\frac{5}{8}$ inch	12 inches	3	ZUNVE	10.50

Solid or 'Tinnery' Punches



	Diameter of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1195	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	5 inches	12	YOPCY	\$2.80
No. 1196	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch	6 inches	6	ZUMZY	5.05
No. 1197	$\frac{3}{8}$ inch	$\frac{5}{8}$ inch	7 inches	6	ZUNAT	6.95

Cup Punch



	Diameter of Point	Diameter of Stock	Length Overall	Packed per Box	Code	Price per Dozen
No. 1198	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	5 inches	12	YOPIX	\$2.80

The above tools packed one dozen in a carton.

No. 470 Chisel and Punch Set

A most useful set of forged chisels and punches put up in a convenient turned hardwood box with a mahogany lacquer finish.

The set consists of the 12 tools listed below which are fully described on preceding pages.



- 1—No. 1150 $\frac{1}{4}$ -inch Cold Chisel
- 1—No. 1154 $\frac{3}{8}$ -inch Cold Chisel
- 1—No. 1156 $\frac{1}{2}$ -inch Cold Chisel
- 1—No. 1140 $\frac{1}{8}$ -inch Cape Chisel
- 1—No. 1142 $\frac{1}{4}$ -inch Cape Chisel
- 1—No. 1176 $\frac{5}{32}$ -inch Square Chisel
- 1—No. 1178 $\frac{5}{32}$ -inch Diamond Point Chisel
- 1—No. 1190 $\frac{1}{8}$ -inch Round Nose Cape Chisel
- 1—No. 1195 $\frac{5}{32}$ -inch Solid Punch
- 1—No. 1198 $\frac{5}{32}$ -inch Cup Punch
- 1—No. 1199 Prick Punch
- 1—No. 1202 Center Punch

Each tool forged from octagon alloy steel, carefully hardened and tempered with well ground and polished points and heads.

	Weight	Code	Price per Set
No. 470	2 $\frac{1}{2}$ lbs.	YORAY	\$3.60

Packed one in a box.

Taper Pin Punches



Forged from a high grade of octagon alloy steel, $\frac{3}{8}$ -inch in diameter (except the two smallest sizes which are $\frac{1}{4}$ -inch) and about 6 inches long. They are carefully heat-treated and the points and heads well ground and polished. They have the same distinctive vermilion lacquered head that is used on the rest of our punch and chisel line.

	Size	Diameter of Stock	Code	Per Dozen
No. 573	$\frac{3}{32}$ inch	$\frac{1}{4}$ inch	YUMEZ	\$2.65
No. 413	$\frac{1}{8}$ inch	$\frac{1}{4}$ inch	YOHYT	2.65
No. 574	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	YUMIB	2.65
No. 415	$\frac{3}{16}$ inch	$\frac{3}{8}$ inch	YOILT	2.65
No. 575	$\frac{7}{32}$ inch	$\frac{3}{8}$ inch	YUMOC	2.65
No. 416	$\frac{1}{4}$ inch	$\frac{3}{8}$ inch	YOIPY	2.65
No. 417	$\frac{5}{16}$ inch	$\frac{3}{8}$ inch	YOIRB	2.65
No. 418	$\frac{3}{8}$ inch	$\frac{3}{8}$ inch	YOJAP	2.65

Packed one dozen in a carton. Average weight, 2 pounds.

	Code	Price Each
No. 472 Set of 5: one each $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, and $\frac{3}{8}$ inch	YOIREZ	\$1.10

Packed one in a box. Weight, 13 ozs.

Long Heavy Pin Punches



These punches are heavier and longer than those listed before. The points are $3\frac{1}{2}$ inches long and are made of tool steel carefully hardened, tempered and polished. The shanks are made of hexagonal steel with a hardened and polished head. Overall length, 9 inches.

	Size	Diameter of Stock	Code	Per Dozen
No. 792	$\frac{3}{16}$ inch	$\frac{3}{8}$ inch	ZEFUB	\$5.50
No. 793	$\frac{1}{4}$ inch	$\frac{3}{8}$ inch	ZEFVA	5.50
No. 794	$\frac{5}{16}$ inch	$\frac{1}{2}$ inch	ZEFWE	5.50
No. 795	$\frac{3}{8}$ inch	$\frac{1}{2}$ inch	ZEFZO	5.50
No. 796 Set of Four Sizes			ZEGBO	1.90

Packed one dozen or one set in a carton.

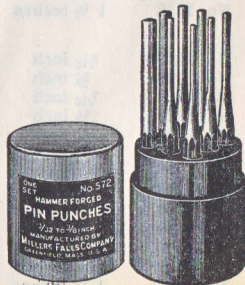
No. 572 Pin Punch Set

A useful and convenient set made up of the 8 sizes of punches shown at the top of this page, as follows: $\frac{3}{32}$, $\frac{1}{8}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{5}{16}$, and $\frac{3}{8}$ inch.

The container is a round hardwood block and cover nicely turned and finished, providing a convenient holder.

	Weight	Code	Price Each
No. 572	2 lbs.	YUMCO	\$2.50

Packed one in a box.



Star Drills



Forged Manganese Alloy Steel

These drills have remarkable free, fast cutting ability in concrete, brick and stone.

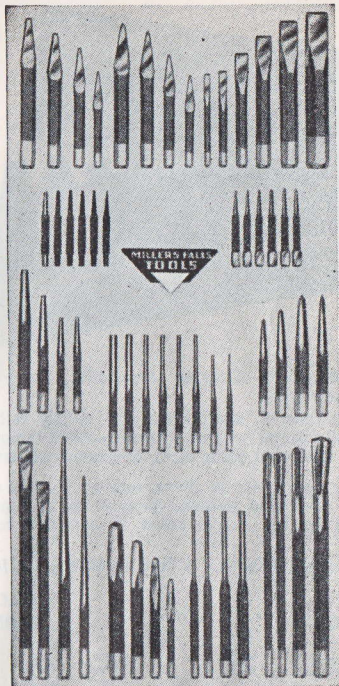
They are forged from a high grade of octagon manganese alloy steel selected for its toughness and ability to hold an edge. The bit and head are carefully hardened and tempered for the severe service expected of them.

The blades and flutes are designed and proportioned to give ample strength and provide adequate chip clearance. The blades taper back slightly and their outer face is ground concentric with the bit to insure free turning. The bit is pointed just enough to start holes easily at the desired point and keep it centered. The blades are long to permit resharping without reforging.

The blades are polished and the head of the tool is finished in vermillion lacquer with polished face. The body is finished in aluminum lacquer. Made in three lengths—8, 12 and 18 inches.

No.	Diameter of Cut	Diameter of Stock	Length	Packed per Box	Code	Price per Dozen
No. 814	1/4 inch	3/16 inch	8 inches	12	ZEJE	\$4.20
No. 856	5/16 inch	1/4 inch	8 inches	12	ZEOST	4.20
No. 1211	1/4 inch	3/16 inch	12 inches	12	ZOKLA	4.20
No. 1211 1/2	5/16 inch	1/4 inch	12 inches	12	ZOKLY	4.20
No. 1212	3/8 inch	5/16 inch	12 inches	12	ZOKME	4.20
No. 1212 1/2	7/16 inch	5/16 inch	12 inches	12	ZOKMO	4.50
No. 1213	1/2 inch	3/8 inch	12 inches	6	ZOKOP	5.05
No. 1213 1/2	9/16 inch	3/8 inch	12 inches	6	ZOKOS	5.70
No. 1214	5/8 inch	1/2 inch	12 inches	6	ZOKPO	6.10
No. 1215	3/4 inch	5/8 inch	12 inches	6	ZOKYR	7.40
No. 1215 1/2	7/8 inch	5/8 inch	12 inches	6	ZOKYT	8.60
No. 1216	1 inch	3/4 inch	12 inches	3	ZOLAM	9.30
No. 1216 1/2	1 1/8 inches	7/8 inch	12 inches	3	ZOLAS	12.35
No. 1217	1 1/4 inches	7/8 inch	12 inches	3	ZOLEN	15.90
No. 1217 1/2	1 3/8 inches	1 inch	12 inches	1	ZOLET	19.80
No. 1218	1 1/2 inches	1 1/8 inches	12 inches	1	ZOLIP	24.25
No. 1219 1/2	5/16 inch	1/4 inch	18 inches	6	ZOMPE	5.55
No. 1220	3/8 inch	5/16 inch	18 inches	6	ZOMRO	5.55
No. 1220 1/2	7/16 inch	5/16 inch	18 inches	6	ZOMRU	5.95
No. 1221	1/2 inch	3/8 inch	18 inches	6	ZOMUS	6.60
No. 1221 1/2	9/16 inch	3/8 inch	18 inches	6	ZOMUX	7.15
No. 1222	5/8 inch	1/2 inch	18 inches	3	ZOMYT	7.75
No. 1223	3/4 inch	5/8 inch	18 inches	3	ZONAP	9.00
No. 1223 1/2	7/8 inch	5/8 inch	18 inches	3	ZONAW	10.00
No. 1224	1 inch	3/4 inch	18 inches	3	ZONIR	11.15
No. 1224 1/2	1 1/8 inches	7/8 inch	18 inches	3	ZONIX	14.55
No. 1225	1 1/4 inches	7/8 inch	18 inches	3	ZONOS	17.95
No. 1225 1/2	1 3/8 inches	1 inch	18 inches	1	ZONOV	23.35
No. 1226	1 1/2 inches	1 1/8 inches	18 inches	1	ZONPA	29.10

No. 1110 Forged Tool Display



✓
NEW

A carefully selected assortment of forged tools and nail sets mounted on a $\frac{3}{4}$ -inch plywood panel nicely finished in hardware orange. Each tool identified by a celluloid tack with the number and room to write in the selling price. The panel is 18 inches wide and 36 inches high.

The assortment consists of fifty-eight tools as follows:

Cape Chisels—Nos. 1140, 1143, 1144 and 1145
Round Nose Cape Chisels—Nos. 1190, 1191, 1192 and 1193
Cold Chisels—Nos. 1150, 1154, 1158, 1160, 1162 and 1164
Long Cold Chisels—Nos. 1170 and 1172
Center Punches—Nos. 142, 460, 1202, 1204 and 1206
Prick Punch—No. 1201
Nail Sets—Nos. 451 to 455 and 310— $\frac{1}{32}$ to $\frac{5}{32}$ inch

Solid Punches—Nos. 1195, 1196 and 1197
Cup Punch—No. 1198
Pin Punches—Nos. 413, 415, 416, 417, 418, 573, 574 and 575
Drift Punches—Nos. 1208 and 1210
Diamond Point Chisels—Nos. 1178, 1180, 1182 and 1184
Long Pin Punches—Nos. 792 to 795
Star Drills—Nos. 1212, 1213, 1215 and 1216

These tools are illustrated and described on adjacent pages.

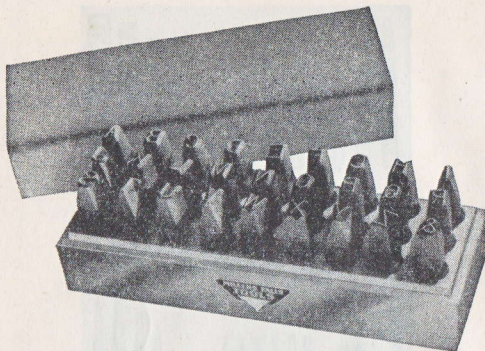
No. 1110	Display Complete	Dimensions 18 x 36 inches	Weight 25 lbs.	Code ZISIM	Price Each \$23.50
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No charge whatsoever is made for the panel or mounting the tools.

Packed one in a wooden case.

Steel Letters and Figures

NEW



HAND CUT. The finest quality of stamp procurable. Every character guaranteed hand cut from the finest grade of tool steel.

The faces are accurately formed, sharply cut and deeply relieved, insuring clear, legible impressions. Faces and well formed heads are hardened and tempered with the utmost care to make these stamps the best and most economical for general industrial use.

MACHINE MADE. The characters in these sets are formed on blanks of a good quality of tool steel by a specially developed machine process using superior master dies producing sharper, cleaner faces than usual. Ample relief is provided to produce clear, long-lived impressions.

Carefully hardened and tempered faces. A fine, durable stamp for general all-round use.

HAND CUT GOTHIC FACE

Height Character	No. 1300 Letters per Set	No. 1350 Figures per Set	Single Characters	Size Stock
1/32"	\$15.00	\$5.00	\$0.60	1/4 x 2 5/8"
1/24"	13.50	4.50	.50	1/4 x 2 5/8"
1/20"	13.50	4.50	.50	1/4 x 2 5/8"
1/16"	10.50	3.50	.40	1/4 x 2 5/8"
3/32"	10.50	3.50	.40	5/16 x 2 3/4"
1/8"	10.50	3.50	.40	5/16 x 2 3/4"
5/32"	12.00	4.00	.50	3/8 x 2 7/8"
3/16"	13.50	4.50	.55	3/8 x 2 7/8"
7/32"	15.00	5.00	.65	7/16 x 3"
1/4"	16.50	5.50	.70	7/16 x 3"
5/16"	19.50	6.50	.80	1/2 x 3"
3/8"	24.00	8.00	.90	9/16 x 3 1/4"
7/16"	27.00	9.00	1.10	5/8 x 3 1/4"
1/2"	33.00	11.00	1.30	5/8 x 3 1/4"

MACHINE MADE ROMAN FACE

Height Character	No. 1500 Letters per Set	No. 1550 Figures per Set	Single Characters	Size Stock
1/32"	\$7.50	\$2.50	\$0.35	7/32 x 2 3/8"
1/24"	7.50	2.50	.30	7/32 x 2 3/8"
1/20"	6.00	2.00	.30	7/32 x 2 3/8"
1/16"	4.50	1.50	.25	7/32 x 2 3/8"
1/12"	4.50	1.50	.25	7/32 x 2 3/8"
3/32"	4.50	1.50	.25	7/32 x 2 3/8"
1/10"	4.50	1.50	.25	1/4 x 2 1/2"
1/8"	4.50	1.50	.25	1/4 x 2 1/2"
5/32"	5.25	1.75	.30	5/16 x 2 1/2"
3/16"	6.00	2.00	.30	5/16 x 2 1/2"
7/32"	6.75	2.25	.35	3/8 x 2 5/8"
1/4"	7.50	2.50	.35	3/8 x 2 5/8"
5/16"	9.00	3.00	.40	7/16 x 2 3/4"
3/8"	10.50	3.50	.50	1/2 x 2 3/4"
7/16"	12.75	4.25	.55	9/16 x 2 7/8"
1/2"	14.25	4.75	.65	5/8 x 3"

Sets of letters, sizes 1/32" through 1/4", consist of 28 characters, including & and a period.

Sets of letters, sizes 5/16" through 1/2", consist of 27 characters, the period being omitted.

Sets of figures consist of nine characters from 0 to 8, the 6 being also used for the 9.

Each set packed in a well made, nicely finished wood box.

Hand Cut Letters and Figures packed one set in wood box with a red lacquered top and aluminum lacquered bottom.

Machine Made Letters and Figures packed one set in a stained wood box.

Square Head Nail Sets



The advantages of this type of head are many. Because of the larger striking surface the head will wear longer before it is rounded over. There is less chance of striking the set on an angle and therefore less sting on the fingers. It will not roll on an inclined surface. When carried in the pocket with other small tools it is easily picked out without removing the others. Head, $\frac{3}{8}$ inch square. Its convenience and durability will be appreciated by every carpenter and mechanic. Hardened and tempered points and heads. Bright finish.

	Points	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 451	$\frac{1}{32}$ inch	$\frac{5}{16}$ inch	4 inches	17 ozs.	MACAW	\$1.60
No. 452	$\frac{2}{32}$ inch	$\frac{5}{16}$ inch	4 inches	17 ozs.	MACER	1.60
No. 453	$\frac{3}{32}$ inch	$\frac{5}{16}$ inch	4 inches	17 ozs.	MACH	1.60
No. 454	$\frac{4}{32}$ inch	$\frac{5}{16}$ inch	4 inches	17 ozs.	MADAR	1.60
No. 455	$\frac{5}{32}$ inch	$\frac{5}{16}$ inch	4 inches	17 ozs.	MADIA	1.60
No. 4501	One dozen assorted as listed below			17 ozs.	MADLY	1.60

Unless otherwise specified, the following assortment will be furnished: two each $\frac{1}{32}$ and $\frac{4}{32}$ inch; four each $\frac{2}{32}$ and $\frac{3}{32}$ inch. Packed one dozen of a size, or assorted, in a box.

No. 4500 Nail Set Display

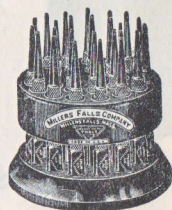
A neat, bright display holding two dozen square head nail sets, center or prick punches. It is substantially made of hardwood finished in bright glossy red enamel.

Given free with the first order for three dozen nail sets, Nos. 451-455, or three assortments No. 4501.

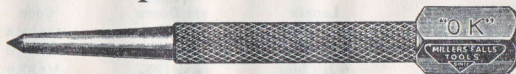
Diameter of base, $4\frac{3}{4}$ inches; height, $5\frac{1}{2}$ inches.

	Weight	Code	Price Each
No. 4500 with Sets	$3\frac{3}{4}$ lbs.	MADRE	\$4.75

Packed one in a box.



No. 460 Square Head Center Punch



Hardened and tempered points and heads. Bright finish.

	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 460	$\frac{5}{16}$ inch	4 inches	17 ozs.	MALTA	\$1.60

No. 470 Square Head Prick Punch



Hardened and tempered points and heads. Bright finish.

	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 470	$\frac{5}{16}$ inch	4 inches	17 ozs.	MARES	\$1.65

Packed twelve in a box.

No. 310 Nail Sets

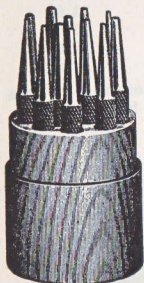


Made in both bright and blued finish. Blued furnished, unless bright is specified.

	Points	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 310	1/32 inch	3/32 inch	4 inches	13 OZS.	MAGIC	\$10.50
No. 310	1/16 inch	5/16 inch	4 inches	13 OZS.	MAGNA	10.50
No. 310	3/32 inch	5/16 inch	4 inches	13 OZS.	MAGOT	10.50
No. 310	1/8 inch	5/16 inch	4 inches	13 OZS.	MAGUS	10.50
No. 310	5/32 inch	5/16 inch	4 inches	13 OZS.	MAHOL	10.50

Unless otherwise specified, the following assortment will be furnished: two each 1/32 and 1/16 inch; four each 1/8 and 5/32 inch.

Packed one dozen of a size, or assorted, in a box.



No. 312 Set of Nail Sets

This set consists of twelve assorted sizes of No. 310 Nail Sets put up in a well-made hardwood box, as illustrated, finished in clear lacquer.

No. 312	Weight	Code	Price per Set
	1 lb.	MAINE	\$1.10

Nos. 141 to 146 Center Punches



Nicely knurled bodies. Shank and head polished. Points finely finished.

	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 141	5/16 inch	4 inches	3/4 lb.	MALMA	\$1.50
No. 142	3/8 inch	4 inches	1 1/4 lbs.	MANCH	1.90
No. 145	1/2 inch	4 inches	2 1/4 lbs.	MANKS	2.60
No. 146	1/2 inch	5 inches	2 1/2 lbs.	MANSE	3.10

Packed one dozen in a box.

Nos. 167 and 168 Prick Punches



Nicely knurled bodies. Point and head polished. Points finely finished.

	Body	Length	Weight per Dozen	Code	Price per Dozen
No. 167	5/16 inch	4 inches	3/4 lb.	MARRY	\$1.70
No. 168	3/8 inch	4 inches	1 1/4 lbs.	MARSH	2.10

Packed one dozen in a box.

No. 999 Nail Sets



A sturdy set with a finely knurled $\frac{3}{8}$ -inch body furnished with $\frac{2}{32}$, $\frac{3}{32}$, $\frac{4}{32}$, $\frac{5}{32}$, and $\frac{6}{32}$ inch points. Supplied in straight or assorted sizes. Heat-treated points and heads. Well cupped points. Blued finish.

	Points	Body	Length	Approx. Wt. Dozen	Code	Price per Dozen
No. 999	$\frac{2}{32}$ inch	$\frac{3}{8}$ inch	4 inches	1½ lbs.	ZIPYR	\$1.60
No. 999	$\frac{3}{32}$ inch	$\frac{3}{8}$ inch	4 inches	1½ lbs.	ZIPYT	1.60
No. 999	$\frac{4}{32}$ inch	$\frac{3}{8}$ inch	4 inches	1½ lbs.	ZIPYZ	1.60
No. 999	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	4 inches	1½ lbs.	ZIPZA	1.60
No. 999	$\frac{6}{32}$ inch	$\frac{3}{8}$ inch	4 inches	1½ lbs.	ZIPZO	1.60

Packed one dozen in a box.

No. 997 Hollow Punches



These punches are made from a very high grade of round tool steel about 4 inches long. The centers are knurled to insure a firm grip. They are very carefully hardened and tempered their entire length. The cutting edges are sharpened.

Made in fifteen sizes as follows:

	Hole	Size Body	Code	Price per Dozen
No. 1	$\frac{5}{64}$ inch	$\frac{3}{8}$ inch	ZINKA	\$3.90
No. 2	$\frac{3}{32}$ inch	$\frac{3}{8}$ inch	ZINLE	3.90
No. 3	$\frac{7}{64}$ inch	$\frac{3}{8}$ inch	ZINNO	3.90
No. 4	$\frac{1}{8}$ inch	$\frac{3}{8}$ inch	ZINON	3.90
No. 5	$\frac{9}{64}$ inch	$\frac{3}{8}$ inch	ZINUP	3.90
No. 6	$\frac{5}{32}$ inch	$\frac{3}{8}$ inch	ZIOXY	3.90
No. 7	$\frac{3}{16}$ inch	$\frac{3}{8}$ inch	ZIPAL	3.90
No. 8	$\frac{7}{32}$ inch	$\frac{7}{16}$ inch	ZIPEM	3.90
No. 9	$\frac{1}{4}$ inch	$\frac{7}{16}$ inch	ZIPLA	3.90
No. 10	$\frac{9}{32}$ inch	$\frac{7}{16}$ inch	ZIPME	4.45
No. 11	$\frac{5}{16}$ inch	$\frac{1}{2}$ inch	ZIPOP	4.45
No. 12	$\frac{11}{32}$ inch	$\frac{1}{2}$ inch	ZIPPO	4.45
No. 13	$\frac{3}{8}$ inch	$\frac{9}{16}$ inch	ZIPPR	5.80
No. 14	$\frac{13}{32}$ inch	$\frac{9}{16}$ inch	ZIPRA	5.80
No. 15	$\frac{7}{16}$ inch	$\frac{9}{16}$ inch	ZIPRI	5.80

Packed one dozen in a box.

No. 2 Assembling Tool



This tool is especially useful in automobile repairing and assembling, being used to line up holes through which pins, bolts, screws, etc., are to be placed.

Made of tool steel, spring tempered. Handle, heavily knurled. Taper, polished.

No. 2	Body 1/2 inch	Point 3/16 inch	Length 10 inches	Weight 6 OZS.	Code NEEDY	Price Each \$0.70
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Packed six in a box.

Machinists' Pin Punches



These punches are made from a very high grade of round tool steel about four inches long. The centers are knurled and the points and shanks nicely polished. Every punch is very carefully hardened and tempered its entire length. Blued finish. Average weight per dozen, 1 pound.

	Points	Stock	Code	Price per Dozen
No. 681	1/16 inch	5/16 inch	ZALTZ	\$2.10
No. 682	3/32 inch	5/16 inch	ZALOB	2.10
No. 683	1/8 inch	5/16 inch	ZALUC	2.10
No. 684	5/32 inch	5/16 inch	ZALWA	2.10
No. 685	3/16 inch	3/8 inch	ZALYE	2.10
No. 686	7/32 inch	3/8 inch	ZAMAY	2.10
No. 687	1/4 inch	3/8 inch	ZAMCO	2.10
No. 688	5/16 inch	3/8 inch	ZAMEZ	2.10

Packed one dozen in a box.

Light Pin Punches



Three "O.K." Light Pin Punches mounted on an attractive display card. Set contains one each of the following sizes:

Points	Body	Length
1/16 inch	3/16 inch	2 1/4 inches
5/64 inch	3/16 inch	2 3/4 inches
3/32 inch	3/16 inch	2 1/2 inches
	Code	Price per Set
No. 36	MIRZA	\$0.40

Packed six in a sets box.

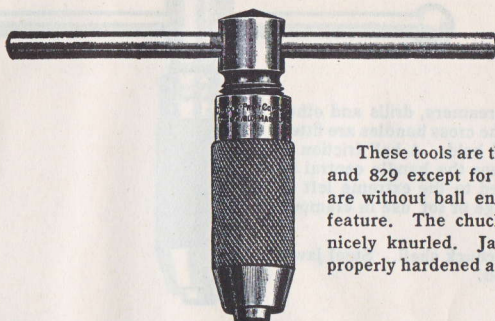


These are the same style of punches as those in No. 36 set, but are larger. Set contains one each of the following sizes:

Points	Body	Length
3/32 inch	1/4 inch	2 3/4 inches
7/64 inch	1/4 inch	2 7/8 inches
1/8 inch	1/4 inch	3 inches
	Code	Price per Set
No. 37	MISER	\$0.50

Packed six sets in a box.

Nos. 88 and 89 Tap Holders

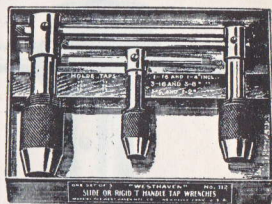
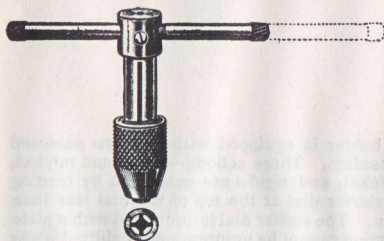


These tools are the same as Nos. 828 and 829 except for the handles, which are without ball ends and the shifting feature. The chuck shell is long and nicely knurled. Jaws are forged steel, properly hardened and tempered.

	Capacity	Handles	Weight	Code	Price Each
No. 88	$\frac{7}{32}$ inch	$3\frac{1}{2}$ inches	$3\frac{1}{2}$ OZS.	YATPO	\$0.70
No. 89	$\frac{3}{8}$ inch	$4\frac{1}{2}$ inches	$4\frac{1}{2}$ OZS.	YATYR	.95

Packed one in a box.

Nos. 10 to 12 Tap Wrenches



This tool is designed for holding taps, reamers, small drills, or other small tools. It is superior to similar wrenches, because of its slide handle, which permits its use in many places where a rigid handle cannot be turned. For ordinary work handle can be set rigid by means of a set screw. Chuck shell is knurled. Jaws are tempered, sleeve is case-hardened. Centers accurately. Capacities specified are small shank hand tap sizes.

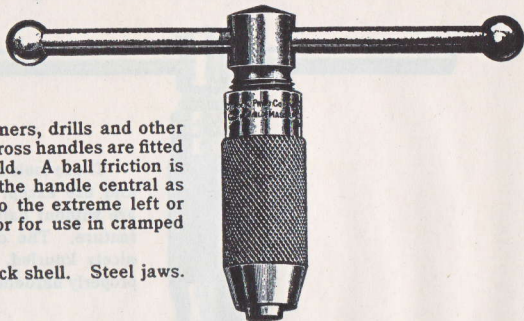
	Length of Handle	Capacity	Weight Each	Code	Price Each
No. 10	$3\frac{1}{4}$ inches	$\frac{1}{16}$ to $\frac{1}{4}$ inch	2 OZS.	NAVAL	\$0.75
No. 11	$4\frac{3}{4}$ inches	$\frac{3}{16}$ to $\frac{3}{8}$ inch	4 OZS.	NAVEW	.95
No. 12	$5\frac{1}{4}$ inches	$\frac{1}{4}$ to $\frac{1}{2}$ inch	8 OZS.	NAVIC	1.40
No. 112	Set one each Nos. 10, 11, and 12		18 OZS.	NAVYV	3.30

Nos. 10 and 11 packed six, and No. 12, two, in a box. No. 112, one set in a box.

Nos. 828 and 829 Tap Holders

Designed for holding taps, reamers, drills and other tools to be turned by hand. The cross handles are fitted with ball ends to afford a good hold. A ball friction is located in the head, which keeps the handle central as illustrated, but it can be slipped to the extreme left or right at will for greater leverage or for use in cramped spaces.

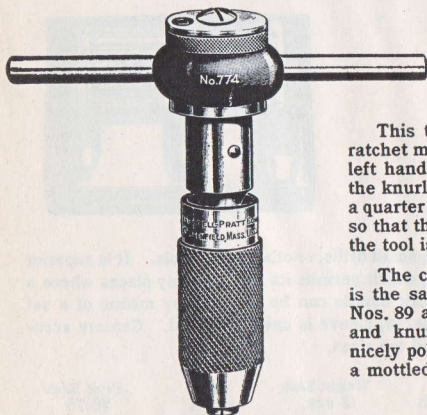
Extra long, nicely knurled chuck shell. Steel jaws. Steel throughout nicely polished.



	Capacity	Handle	Weight	Code	Price Each
No. 828	$\frac{1}{32}$ -inch Taps	$3\frac{3}{8}$ inches	3 OZS.	ZEKYH	\$0.85
No. 829	$\frac{3}{16}$ -inch Taps	$4\frac{1}{2}$ inches	5 OZS.	ZELAC	1.10

Packed one in a box.

No. 774 Ratchet Tap Holder



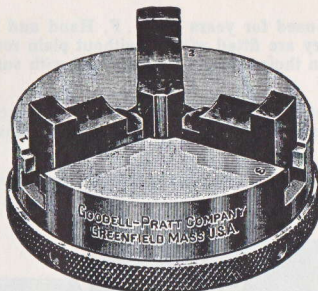
This tap holder is equipped with our new patented ratchet mechanism. Three actions—right hand ratchet, left hand ratchet, and rigid—are controlled by turning the knurled shifter dial at the top of the tool less than a quarter turn. The shifter dial is protected with a plate so that the action cannot be unintentionally shifted while the tool is in use.

The chuck has capacity for holding $\frac{3}{8}$ -inch taps and is the same chuck that has proved so reliable on our Nos. 89 and 829 Tap Holders. The shell is extra long and knurled to give a good grip. Steel throughout, nicely polished except for the ratchet body, which has a mottled case-hardened finish.

	Capacity	Length Overall	Weight	Code	Price Each
No. 774	$\frac{3}{8}$ -inch Taps	$3\frac{3}{8}$ inches	$\frac{1}{2}$ lb.	ZEASK	\$3.00

Packed one in a box.

Scroll Chucks



With Outside Jaws

Indispensable for use on small lathes for holding work of various shapes and diameters. The jaws are operated by turning the knurled ring, moving them in or out as desired. The jaws are carefully fitted so that steps and center are accurate and concentric. Each jaw is fitted to the slot it runs in. Jaws must always run in the slot of corresponding number. After being fitted the jaws are carefully heat-treated and all other parts are nicely polished. A spanner is furnished with each chuck. No face plates furnished. A hole runs through the body of each chuck so that long rods may be held.

With Outside Jaws

	Diameter	Hole	Weight	Code	Price Each
No. 180	2 inches	$\frac{1}{2}$ inch	1 lb.	YEJFA	\$13.20
No. 181	3 inches	$\frac{11}{16}$ inch	2 $\frac{1}{4}$ lbs.	YEJLY	14.60



With Inside Jaws

With Outside and Inside Jaws

	Diameter	Hole	Weight	Code	Price Each
No. 180 $\frac{1}{2}$	2 inches	$\frac{1}{2}$ inch	1 $\frac{1}{8}$ lbs.	YEJGE	\$15.90
No. 181 $\frac{1}{2}$	3 inches	$\frac{11}{16}$ inch	2 $\frac{3}{4}$ lbs.	YEJOJ	18.20

Packed one in a box.

Fitting Scroll Chucks

A scroll chuck must be accurately fitted to a face plate so that it runs concentric with the lathe spindle on which it is used. Any of the chucks listed above can be fitted in this manner for use on our Nos. 125 and 494 Bench Lathes at the following prices:

Nos. 180 and 180 $\frac{1}{2}$	\$3.00
Nos. 181 and 181 $\frac{1}{2}$	3.50

"Millers Falls" Drill Chucks

These chucks have been used for years on M. F. Hand and Breast Drills, with complete satisfaction to the user. They are fitted with or without plain round or flattened shanks and hold round shank drills within their capacity securely and with surprising accuracy for the low price at which they are sold.

They are made entirely of steel with three hardened jaws actuated by concealed springs that cannot be damaged from without. The shells are nicely knurled to give a good grip for tightening and loosening.

Manufacturers interested in chucks in large quantities for equipment purposes are requested to ask for special large quantity prices.



With Straight Round Shanks

The chucks listed below are regularly equipped with $\frac{1}{2}$ -inch round shanks $2\frac{1}{2}$ inches long. Chucks Nos. 5, 6 and 7 can be supplied with $\frac{1}{4}$ -inch shanks without additional charge when so specified. No. 7 can be furnished with $\frac{3}{8}$ -inch shank if desired.

	Capacity	Greatest Diameter	Weight	Code	Price Each
No. 4	0 to $\frac{3}{16}$ inch	1 inch	6 OZS.	EAGER	\$1.55
No. 5	0 to $\frac{1}{4}$ inch	1 inch	7 OZS.	EARLY	2.10
No. 6	0 to $\frac{3}{8}$ inch	$1\frac{1}{4}$ inches	10 OZS.	EADEL	2.50
No. 7	0 to $\frac{1}{2}$ inch	$1\frac{1}{2}$ inches	17 OZS.	EAGLE	3.40

Furnished with flattened shank for set screw without extra charge.

With Morse Taper Shanks

These chucks are the same as Nos. 4, 5, 6 and 7, but with Taper Shanks. These shanks are accurately made and are according to Morse Standard.

No. 1M.T.		No. 2M.T.		No. 3M.T.	
No.	Price	No.	Price	No.	Price
No. 4M.T.	ECCLE \$2.20				
No. 5M.T.	ECHIN 2.60	ECHOE \$2.75			
No. 6M.T.	ECKLE 3.00	ECLAT 3.20			
No. 7M.T.	ECLIP 4.00	ECOID 4.10		ECOLO \$4.85	

Without Shanks

These are the same chucks listed above but without shanks. They fit a $\frac{1}{2}$ -inch 24-thread spindle.

	Capacity	Greatest Diameter	Code	Price Each
No. 4	0 to $\frac{3}{16}$ inch	1 inch	EARED	\$1.10
No. 5	0 to $\frac{1}{4}$ inch	1 inch	EARSH	1.60
No. 6	0 to $\frac{3}{8}$ inch	$1\frac{1}{4}$ inches	EASTR	1.95
No. 7	0 to $\frac{1}{2}$ inch	$1\frac{1}{2}$ inches	EAVES	2.75

Packed one in a box.

“Goodell-Pratt” Drill Chucks

The construction of these chucks is extremely simple, strong and dependable. They have been used for thirty-five years as regular equipment on the millions of hand and breast drills we have sold in that time. Large quantities have been supplied to manufacturers as regular equipment on a wide variety of products and their performance, in every instance, has been highly satisfactory.

They are made entirely of steel with carefully hardened jaws actuated by three small coil springs. The shanks are carefully fitted to the chuck they are shipped with. This and the care used throughout in their manufacture accounts for the surprising accuracy maintained at the very low price at which they are sold.

No spanner or wrench is required. They can be easily tightened or loosened by hand. The shell is nicely knurled to afford a good grip.

Delivery of these chucks without shanks can be made for special equipment in as large quantities as wanted and especially attractive prices on such requirements will be quoted.



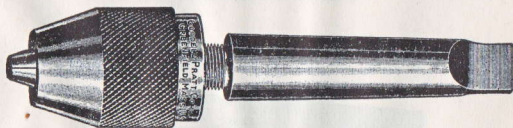
Straight Round Shanks

These chucks are fitted with lathe-turned $\frac{1}{2}$ -inch or $\frac{41}{64}$ -inch shanks. In ordering, be sure to specify which size is desired. Half-inch shanks sent unless otherwise specified.

	Capacity	Weight	Code	Price Each
No. 14	0 to $\frac{5}{32}$ inch	4 OZS.	WYMEN	\$1.40
No. 15	0 to $\frac{1}{4}$ inch	6 OZS.	WYNUS	1.70
No. 15½	0 to $\frac{3}{8}$ inch	9 OZS.	WYPOS	2.10
No. 16	0 to $\frac{1}{2}$ inch	14 OZS.	WYROV	2.75

Packed one in a box.

“Goodell-Pratt” Drill Chucks



Morse Taper Shanks

These drill chucks are provided with standard No. 1 and No. 2 Morse Taper Shanks. In ordering, please specify which size is desired.

	Capacity	Weight, Pounds		Code	Price Each
		No. 1 M.T.	No. 2 M.T.		
No. 14M.T.	0 to $\frac{5}{32}$ inch	$\frac{1}{4}$	$\frac{3}{8}$	WYNAN	\$2.10
No. 15M.T.	0 to $\frac{1}{4}$ inch	$\frac{3}{8}$	$\frac{1}{2}$	WYORV	2.50
No. 15½M.T.	0 to $\frac{3}{8}$ inch	$\frac{5}{8}$	$\frac{3}{4}$	WYRIT	3.00
No. 16M.T.	0 to $\frac{1}{2}$ inch	$\frac{7}{8}$	1	WYSET	3.90

Packed one in a box.

"Master" Chuck

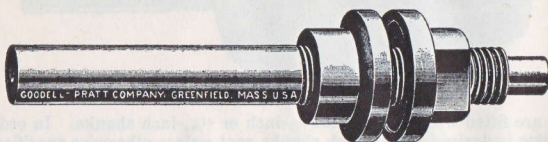


This is the well known "Master" Chuck which has proved so popular on several series of braces and breast drills. It is of the two-jawed Universal type holding $\frac{1}{8}$ to $\frac{1}{2}$ inch round, No. 1 Morse Taper and bit shank drills. Regularly equipped with $\frac{1}{2}$ -inch round shank, 2 $\frac{1}{2}$ inches long. Furnished with $4\frac{1}{4}$ -inch shank, if desired, without extra charge. Special or taper shanks to order. Nicely polished.

No. 150	Capacity Universal	Weight 16 ozs.	Code EDICT	Price Each \$2.50
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Packed one in a box.

Saw or Wheel Arbors



These polished steel arbors will be found convenient for holding saws or wheels in chucks and lathes. They are made in six sizes. The two smaller are made especially for use with electric drills of $\frac{1}{4}$ -inch capacity.

	Length	Diameter of Shank	Opening between Flanges	Diameter between Flanges	Code	Price Each
No. 748	$3\frac{3}{8}$ inches	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch	$\frac{3}{8}$ inch	ZAWEK	\$0.75
No. 814	$3\frac{3}{8}$ inches	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch	$\frac{1}{2}$ inch	ZEJEB	.75
No. 321	4 inches	$\frac{3}{8}$ inch	$\frac{1}{2}$ inch	$\frac{3}{8}$ inch	YILNE	.85
No. 322	$4\frac{3}{4}$ inches	$\frac{1}{2}$ inch	$\frac{1}{2}$ inch	$\frac{1}{2}$ inch	YILYS	.85

Packed one in a box.

Taper Thread Spindles

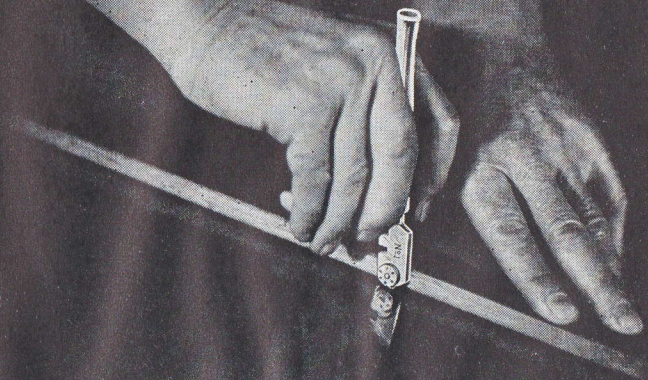


Clean, deep taper threads for holding both buffing wheels and wood center wheels made for a great variety of work. Thread right hand unless marked L. H.

	Diameter Shaft	Length Overall	Weight	Code	Price Each
No. 759	$\frac{3}{8}$ inch	$3\frac{1}{4}$ inches	2 ozs.	ZAZAL	\$0.85
No. 859	$\frac{1}{2}$ inch	$3\frac{3}{8}$ inches	5 ozs.	ZEPAG	.85
No. 869	$\frac{3}{8}$ inch	$3\frac{1}{2}$ inches	5 ozs.	ZERIL	.95

Packed one in a box.

GLASS CUTTERS



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**
SINCE
1868

Glass Cutters

Incredible as it may seem, every wheel that goes into a Goodell-Pratt Glass Cutter or is sold under the Goodell-Pratt name and seal is actually tested on glass for performance before final acceptance. The experts to whom this testing is entrusted have specialized in this work for years. Supplementing these individual tests, machine tests are constantly being run as a further safeguard to the very high standard set for all types of wheels and in order to determine the service value or life of an individual cutter.

All Goodell-Pratt Wheels are tested on the hardest window glass obtainable and 3,000 feet of cut is common accomplishment, and after the cutter is too dull to function properly on very hard glass, it will still cut thousands of feet of soft surface glass before becoming too dull for use.

There are many fine details that enter into the manufacture of these tools that are not readily apparent. The finest Alloy Steels must be used in the wheels, which must be heat-treated with great care to secure uniform hardness and temper, honing of the wheels must be precise and at just the proper angle, the cutting edge must be a true circle and concentric with the bearing, just the proper side clearance for the wheel must be provided and the bearing between the axle and wheel must be as perfect as it is commercially possible to make it.

All of these details have been highly perfected in Goodell-Pratt Glass Cutters. Their performance is outstanding and their low cost of operation figured in feet of glass cut per wheel is phenomenal. They are truly "World Famous."

Tested Wheels



Goodell-Pratt Wheels are carefully machined from solid rods of super-quality Alloy Steels specially treated for the different types of glass they are intended to cut. The holes are drilled and reamed to exact size to insure just the proper clearance when mounted on the hardened axles to give free turning which is absolutely essential to the best performance.

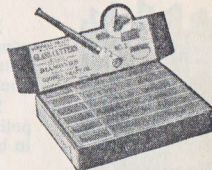
The heat-treatment is the result of over forty years' experience and research. The process is extremely sensitive and controlled within very close limits, insuring a uniformly high grade product.

After being hardened and tempered, the wheels are honed in oil with the utmost care on exceedingly fine India wheels to the critical angle that gives the easiest cut, cleanest break and the longest life for the grade of glass they are intended to cut. Furthermore, this honing operation must leave the wheel perfectly round and concentric with the hole so that it rolls freely on the glass.

Four different types of wheels are used.

Type	Color	Fitting Cutters Nos.	Price per Dozen
C	Red Seal	1-400-2-478-354-224-301	\$0.75
D	Blue Seal	337-979-444-850-95	1.20
E	Green Seal	879	1.20
F	Black Seal	218-202	.75

No. 1 Turret Head Glass Cutter



This is the original turret head cutter that has earned and maintained such a remarkable reputation for consistently high grade, low cost performance in the hands of the glass trade of the world.

The turret is turned from a solid bar of selected steel with the six wheel axles integral parts of the turret. Infinite care is taken in the heat-treatment so that the axles will outwear many wheels. The turret and turret screw is rust-proofed by the Udelyte process.

Six honed and tested Type C "Red Seal" Wheels are mounted on the turret axles. Turret and wheels are locked to the highly polished and nickel-plated steel frame by means of a rust-proofed screw. Wheel No. 1 is used until worn out, then the screw is loosened and wheel No. 2 rotated into position and so on until all six have been used. Always insist on genuine Type C Goodsell-Pratt Wheels for replacements.

The handle is hardwood, comfortably shaped, nicely finished in mahogany lacquer and protected by a buffed nickel ferrule.

Every genuine No. 1 Goodsell-Pratt Turret Head Cutter has the name stamped on the frame and handle and is packed in a distinctive three-color carton. Packed one dozen in the counter display shown above.

No. 1	Length 5 $\frac{3}{4}$ inches	Weight per Dozen 14 ozs.	Code WYBCE	Price per Dozen \$5.00
Packed one in a box; twelve boxes in a carton.				

No. 400 Turret Head Glass Cutter



Similar to No. 1, but with one dozen "Red Seal" Wheels. Six of these are in the rust-proofed turret ready for use and the other six in a screw-locked magazine in the frame.

The end of the mahogany lacquered handle is equipped with a steel breaker ball. The steel frame and breaker ball are nicely polished and nicked.

No. 400	Length 5 $\frac{3}{4}$ inches	Weight per Dozen 1 lb.	Code YOGEN	Price per Dozen \$7.80
Packed one in a box; twelve boxes in a carton.				

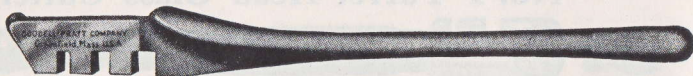
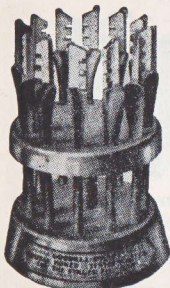
No. 2 Turret Head Glass Cutter



Equipped with the same rust-proofed turret as No. 1, carrying six Type C "Red Seal" Wheels for cutting window and plate glass. The frame and handle are a unit made of one piece of metal with the end shaped for use as a putty knife. The putty knife and head are nicely polished while the handle portion is red enameled.

No. 2	Length 5 $\frac{1}{2}$ inches	Weight per Dozen 1 $\frac{3}{4}$ lbs.	Code WYCED	Price per Dozen \$5.50
Packed one dozen in a box.				

No. 444 Single Wheel Glass Cutter



A recent addition to the line that has proved to be one of the most popular due to the perfect finger fitting form of the handle. It drops naturally into position between the first two fingers and can be used for hours without fatigue or discomfort.

It is equipped with a tested Type D "Blue Seal" Wheel set in a well polished frame with three breaker notches. The finger-fit handle is finished in bright blue lacquer with red tip.

An attractive counter display unit holding one dozen will be supplied free with initial order for two dozen No. 444.

	Length	Weight per Dozen	Code	Price per Dozen
No. 444	5 1/4 inches	1 3/4 lbs.	YOMVE	\$2.40

Packed one in a carton; one dozen cartons in a box.

Nos. 879 and 979 Glass Cutters



Single wheel cutters with an all-metal frame and handle equipped with a tested, specially hardened, tempered and honed wheel for cutting various grades of glass as indicated below.

The well polished frame has three breaker notches. The handle is comfortably shaped and finished in black lacquer with a distinctive green tip.

No. 879 is equipped with Type E Wheel for art, cathedral and other very hard grades of glass.

No. 979 is equipped with Type D Wheel for window and plate glass.

	Length	Weight per Dozen	Code	Price per Dozen
No. 879	5 3/8 inches	1 3/4 lbs.	ZILAM	\$2.40
No. 979	5 5/8 inches	1 3/4 lbs.	ZILAH	2.40
No. 979	Counter Display of 6	3/4 lb.	ZIKUT	1.20

One display in an envelope or one dozen cartons in a box.

No. 337 Single Wheel Glass Cutter



A comfortable, well balanced cutter equipped with a breaker ball on the end of the handle of sufficient weight to get good results.

It is equipped with a tested Type D "Blue Seal" Wheel set in the well polished frame with three standard notches. The handle is finished in black and breaker ball in red lacquer.

	Length	Weight per Dozen	Code	Price per Dozen
No. 337	5 inches	1 1/2 lbs.	YIRUX	\$2.40

Packed one in a carton; one dozen cartons in a box.

Nos. 850 and 950 Glass Cutters



The best cutter ever designed for the manufacturer, jobber and fabricator of large quantities of glass who prefers the single wheel to the turret type.

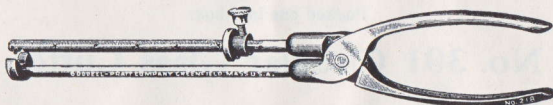
The wheel and axle are carried on a rust-proofed, tempered steel fixture. When a worn wheel is to be replaced, the fixture is pushed forward with the thumb exposing the wheel which can be tipped off, a new wheel slipped on to the axle and the fixture returned to its original position which gives the axle a positive bearing in the frame. Each equipped with a tested Type D Wheel for all grades of flat and plate glass. Type E Wheels can be used if desired. Frame and ferrule nicely polished and nicked. Handle mahogany lacquered hardwood.

No. 950 is exactly the same as No. 850 with the addition of a magazine in the handle holding six extra wheels as illustrated.

	Handle	Length	Weight per Dozen	Code	Price per Dozen
No. 850	Plain	5½ inches	10 ozs.	ZENZO	\$2.50
No. 950	Magazine	5¾ inches	11 ozs.	ZIGPA	4.80

Packed one in a carton; one dozen cartons in a box.

No. 218 Gauge Glass Cutter



The most practical tool ever designed for cutting the gauge glass ordinarily used in steam and hot water boilers.

Owing to the very hard glass used in these gauges, this cutter is supplied with a tested special Type F "Black Seal" Wheel which is set at the end of a graduated steel beam and cuts from the inside, giving a good clean break. The wheels are easily replaced. The length of glass cut off is determined by setting the sliding gauge on the graduated arm. The second steel beam merely counterbalances the cutting pressure on the outside wall of the tube. The steel beams are nicely polished and nicked. Handles finished in red and black lacquer.

	Length	Weight	Code	Price Each
No. 218	12½ inches	¾ lb.	YERRO	\$1.60

Packed one in a box.

No. 202 Gauge Glass Cutter

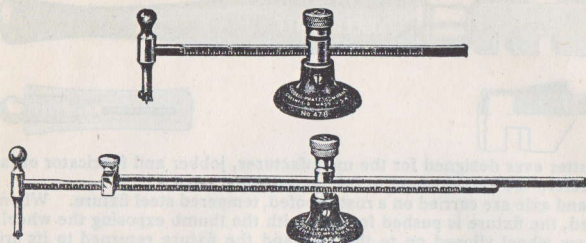


For cutting glass tubes up to 8 inches. Rod easily adjustable by thumb nut. Removable axle on cutting head. Equipped with Type F "Black Seal" Wheel. Magazine in end of mahogany finished handle holds five extra wheels. Rod nicely polished steel.

	Length	Weight	Code	Price Each
No. 202	9 inches	1½ lbs.	KALKI	\$0.90

Packed six in a box.

Circular Glass Cutters



Circles or arcs of circles from 2 to 12, 2 to 24, or 2 to 48 inches in diameter are quickly and accurately cut with these tools. The 48-inch capacity cutter is equipped with a double beam.

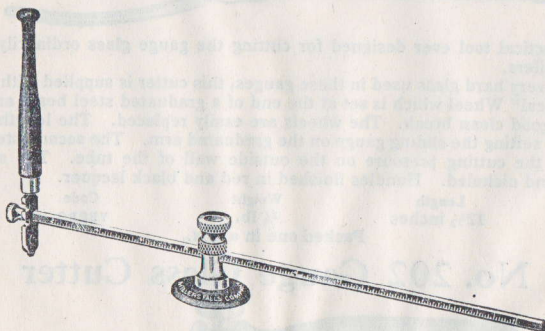
They are equipped with tested Type C "Red Seal" Wheels set in a head at the end of a graduated beam. Wheels can be replaced very easily. The beam pivots freely in the metal standard so that the complete circle can be cut in one continuous sweep. To free the circle without breakage six or more tangents should be cut with a straight cutter.

The standard, finished in bright red lacquer, has a rubber base to prevent slipping.

	Capacity	Weight per Dozen	Code	Price Each
No. 478	2 to 12 inches	1/2 lb.	YOSAZ	\$1.20
No. 224	2 to 24 inches	5/8 lb.	YESRE	1.50
No. 354	2 to 48 inches	3/4 lb.	YIVYE	2.00

Packed one in a box.

No. 301 Circular Glass Cutter



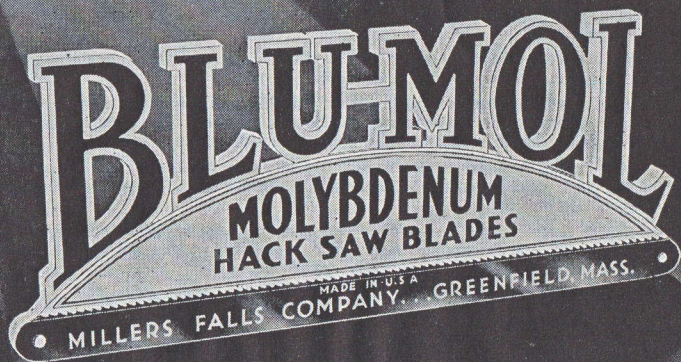
The cutting end of this dual purpose cutter is one of our regular turret head cutters with six honed and tested Type C "Red Seal" Wheels fixed to the end of a graduated beam by means of a knurled thumb screw. The cutter can be used as an ordinary cutter by unscrewing this screw and removing from the beam. Standard has a cork disc inserted in the bottom to prevent slipping.

All exposed steel parts polished and nickel plated.

	Capacity	Weight per Dozen	Code	Price Each
No. 301	2 to 24 inches	1/2 lb.	KALIF	\$1.30

Packed one in a box.

HACK SAW BLADES



Tungsten Hand Hack Saw Blades



Registered Trade-Mark

All Hard



Registered Trade-Mark



These blades are made in both "Millers Falls" and "Universal" Brands. They are recommended for general all-around work in hand frames and are always furnished unless flexible are specified.

The following suggestions, used in connection with the chart on page 132, will help to secure the best performance.

Select a blade with enough teeth per inch so that at least three teeth are always in bearing on the material being cut to avoid stripping of teeth.

Insert the blade in the frame with the teeth pointing away from the operator. Screw up the tensioning device so that the blade is strained tightly. Repeat this operation after the first few strokes. Proper tension prevents wobbling, crooked cutting and breakage.

Bear down on the forward stroke sufficiently to make the teeth cut. Allowing the saw to slide over the work glazes the cutting edges and dulls the teeth. For the same reason lift the blade on the return stroke.

Thirty-five to forty strokes per minute will give the best results. Faster cutting is apt to draw the temper and ruin the blade. Apply enough pressure so that the teeth bite into the work on the forward stroke and relieve it on the return stroke.

All orders should specify brand and catalog numbers of blades wanted.

Made of 23 Gauge—.025 Inch Thick Steel

No.	Length Inches	Teeth per Inch	Width Inch	Weight per Gross Pounds	Code "Millers Falls"	Code "Universal"	Price per Gross
11	8	18	$\frac{7}{16}$	3½	HAIRS	HUMBL	\$8.00
21	8	24	$\frac{7}{16}$	3½	HANUM	HUNKS	8.00
31	8	32	$\frac{7}{16}$	3½	HAROT	HURLY	8.00
3	10	14	$\frac{1}{2}$	5	HABLE	HUFFY	10.00
13	10	18	$\frac{1}{2}$	5	HAMER	HUMID	10.00
23	10	24	$\frac{1}{2}$	5	HAPPY	HURAS	10.00
33	10	32	$\frac{1}{2}$	5	HARPA	HURRA	10.00
5A	12	14	$\frac{1}{2}$	6½	HARPI	HUSTY	12.00
15A	12	18	$\frac{1}{2}$	6½	HARPO	HUSUH	12.00
25A	12	24	$\frac{1}{2}$	6½	HARRE	HUSUZ	12.00
35A	12	32	$\frac{1}{2}$	6½	HARSH	HUSSA	12.00
5	12	14	$\frac{9}{16}$	6¾	HADST	HULKI	13.50
15	12	18	$\frac{9}{16}$	6¾	HANCE	HUMUS	13.50
25	12	24	$\frac{9}{16}$	6¾	HAREM	HURKA	13.50

Packed one-half gross in a box.



Tungsten Hand Hack Saw Blades



Flexible



Registered Trade-Mark

Registered Trade-Mark



Flexible blades are made in both "Millers Falls" and "Universal" Brands. They differ from all hard blades in that the teeth only are hardened, the backs being left soft and consequently unbreakable.

They are particularly well suited for use by electricians, automotive mechanics, steamfitters and plumbers. Also for work in out-of-the-way places and when the work is not firmly held in a vise.

The special suggestions that follow, used in connection with the chart on page 132, will aid in securing the best results.

Select a blade with enough teeth per inch so that at least three teeth are always in bearing on the material being cut to avoid stripping of teeth.

Flexible blades should be used under greater tension than all hard blades. They stretch more easily than all hard blades and consequently they should be tightened frequently in use.

Observe the same stroking suggestions as for all hard blades. When starting a new blade in an old cut, give the work a quarter turn if possible. This will obviate binding due to the wider set of the new blade.

All orders should specify brand and catalog numbers of blades wanted.

Made of 23 Gauge — .025 Inch Thick Steel

No.	Length Inches	Teeth per Inch	Width Inch	Weight per Gross Pounds	Code "Millers Falls"	Code "Universal"	Price per Gross
51	8	18	7/16	3 1/2	HEAVE	HYALI	\$8.00
61	8	24	7/16	3 1/2	HELIX	HYDOT	8.00
71	8	32	7/16	3 1/2	HENCE	HYGRO	8.00
43	10	14	1/2	5	HEARD	HUZZA	10.00
53	10	18	1/2	5	HECTO	HYBOD	10.00
63	10	24	1/2	5	HELVE	HYENA	10.00
73	10	32	1/2	5	HEPTA	HYLEG	10.00
45A	12	14	1/2	6 1/2	HEATH	HYADE	12.00
55A	12	18	1/2	6 1/2	HELIO	HYDAG	12.00
65A	12	24	1/2	6 1/2	HEMOR	HYGEL	12.00
75A	12	32	1/2	6 1/2	HERSE	HYLOT	12.00
45	12	14	9/16	6 3/4	HESAL	HYRAK	13.50
55	12	18	9/16	6 3/4	HESEI	HYRIT	13.50
65	12	24	9/16	6 3/4	HESOR	HYROS	13.50

Packed one-half gross in a box.

Tungsten Hack Saw Chart

In order to obtain the maximum efficiency from a hack saw blade, and the lowest possible sawing cost, it is imperative that the proper saw is used. In hand blades the number of teeth per inch is the chief consideration; in power blades the width and gauge also are essential factors.

The chart below designates the correct blade to use on any given material. Compiled from actual tests made in our own plant and will, if followed, reduce direct sawing costs as well as the cost of saws.

Hand Blades

"All Hard" hand blades are recommended for experienced mechanics for work at the bench that can be held rigidly. "Flexible" hand blades are recommended for plumbers, electricians, garagemen, sheet metal workers and all work away from the bench.

Length in Inches	Width in Inches	ALL HARD				FLEXIBLE			
		Aluminum, Brass, Copper, Soft Steel, Cast Iron	Iron Pipe, Light Angle Iron, Tool Steel	Drill Rod, Medium Tubing, Sheet Metals	Thin Tubing, Electric Casings, Thin Sheets	Aluminum, Brass, Copper, Soft Steel, Cast Iron	Iron Pipe, Light Angle Iron, Tool Steel	Drill Rod, Medium Tubing, Sheet Metals	Thin Tubing, Electric Casings, Thin Sheets
		14 Teeth	18 Teeth	24 Teeth	32 Teeth	14 Teeth	18 Teeth	24 Teeth	32 Teeth
8	$\frac{7}{16}$		No. 11	No. 21	No. 31		No. 51	No. 61	No. 71
10	$\frac{1}{2}$	No. 3	No. 13	No. 23	No. 33	No. 43	No. 53	No. 63	No. 73
12	$\frac{1}{2}$	No. 5A	No. 15A	No. 25A	No. 35A	No. 45A	No. 55A	No. 65A	No. 75A
12	$\frac{9}{16}$	No. 5	No. 15	No. 25	No. 35	No. 45	No. 55	No. 65	

Power Blades

Length in Inches	For Light Power Machines 21 Ga.— .032 x $\frac{5}{8}$ " or $\frac{3}{4}$ "	For Medium Power Machines 18 Ga.—.049 x $\frac{3}{4}$ "		For Heavy Power Machines 18 Ga.—.049 x 1"		For Extra Heavy Power Machines 16 Ga.— .065 x $1\frac{1}{4}$ " or $1\frac{1}{2}$ "
	Annealed Tool Steel Soft Steel	Heavy Angle Iron Iron Pipe Cast Iron	Tool Steel Hard Metals	Soft Steel Annealed Tool Steel Brass Copper	Steel Tubing Tool Steel Light Angle Iron	Soft Steel Large Work Machinery Steel Steel Rails Tool Steel Angle Iron
	14 Teeth	10 Teeth	14 Teeth	10 Teeth	14 Teeth	10 Teeth
12	No. 120	No. 121	No. 122	No. 123	No. 124	.....
12	No. 125	.....	.....	.....	.....	.....
12	No. 126*	.....	.....	.....	.....	.....
12	No. 127*	.....	.....	.....	.....	.....
14	.....	No. 141	No. 142	No. 143	No. 144	No. 148
17	.....	.....	.....	No. 171	No. 172	No. 176
18	.....	.....	.....	.....	.....	No. 184
21	.....	.....	.....	.....	.....	No. 214
24	.....	.....	.....	.....	.....	No. 244

The above numbers apply to "Millers Falls" and "Universal" blades as well.

*Has 18 teeth. Adapted especially for Thin Sections and Hard Tool Steel.

Tungsten Hack Saw Blades

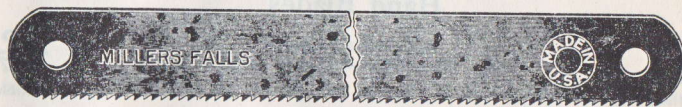


Power



Registered Trade-Mark

Registered Trade-Mark



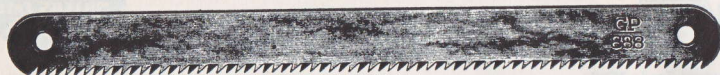
Tungsten Power Blades are made in both "Millers Falls" and "Universal" Brands. The use of good cutting solutions and proper selection of blade are highly important for maximum performance. Pressure on the saw and rigidity of work are likewise important. When cutting dry on light machines, 50 strokes per minute are recommended; on medium and heavy machines with cutting solution 100 S.P.M. for soft steel and wrought iron; 70 to 80 S.P.M. for hard tool or annealed steel. Do not cut unannealed steel.

All orders should specify brand and catalog numbers of blades wanted.

No.	Length Inches	Teeth per Inch	Width Inches	Thickness Gauge	Weight per Gross Pounds	Code "Millers Falls"	Code "Universal"	Price per Gross
125	12	14	5/8	.032-21	10	HINGE	HYMEN	\$16.20
126	12	18	5/8	.032-21	10	HILLY	HYMNO	16.20
120	12	14	3/4	.032-21	11 1/2	HICUP	HYODO	19.44
127	12	18	3/4	.032-21	11 1/2	HICOL	HYOID	19.44
121	12	10	3/4	.049-18	17 3/4	HIDEN	HYPAL	24.48
122	12	14	3/4	.049-18	17 3/4	HIERO	HYPER	24.48
123	12	10	1	.049-18	23	HIFER	HYPNE	32.64
124	12	14	1	.049-18	23	HIGRE	HYPID	32.64
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140	14	14	3/4	.032-21	13 1/2	HILUM	HYOMA	28.56
141	14	10	3/4	.049-18	20	HINDI	HYPNO	28.56
142	14	14	3/4	.049-18	20	HIPPA	HYPKI	28.56
143	14	10	1	.049-18	23 1/2	HIRER	HYPOB	38.08
144	14	14	1	.049-18	23 1/2	HISTO	HYPKO	38.08
148	14	10	1 1/4	.065-16	36	HITCH	HPORE	58.80
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171	17	10	1	.049-18	33	HIXOT	HPUTE	46.24
172	17	14	1	.049-18	33	HOBIT	HYSON	46.24
176	17	10	1 1/4	.065-16	45	HOCCO	HPALK	71.40
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184	18	10	1 1/4	.065-16	58 1/2	HOVEN	HPPOOL	75.60
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214	21	10	1 1/2	.065-16	72	HURON	HPOVE	105.84
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244	24	10	1 1/2	.065-16	96	HUTUM	HPEXT	120.96

No. 21 Gauge blades packed one-half gross in a box. No. 18 Gauge, 10 inches and 12 inches by 3/4 inch, one-third gross. No. 18 Gauge, 14 inches by 3/4 inch, one-fourth gross. Nos. 18 Gauge and 16 Gauge, by 1 inch, one-fourth gross. Nos. 18 Gauge and 16 Gauge, over 1 inch, one-twelfth gross.

"Goodell-Pratt" Tungsten Hack Saw Blades



Hand Blades

GP
888

All Hard

Trade-Marks Registered
U. S. Patent Office and Other Countries

GP
777

Flexible

Through their excellent quality and fine performance these blades have made an enviable reputation for themselves in every market in the world. Their ability to cut fast and their long life reduce hack-sawing costs to the minimum. They are made of a special analysis tungsten alloy steel individually heat-treated in automatically controlled electric furnaces.

Every step in their manufacture is subject to the same standards and critical inspections as our other brands of blades. They are continually under test to insure the fast cutting qualities and long life for which they are known.

GP
888

All-Hard Blades. Recommended for all work at the bench. In spite of their hardness a surprising amount of flexibility is secured which contributes materially to their popularity as an all-round, general purpose blade of outstanding merit.

GP
777

Flexible Blades. For many kinds of work a flexible blade, one that will not break when subjected to severe twists and side strains, is more economical and satisfactory than an all-hard blade. They are particularly well suited to the electrical, plumbing, garage, sheet metal and other fields where a large part of the work is away from the bench.

Made of 23 Gauge—.025 Inch Thick Steel

Length Inches	Width Inches	Pitch Teeth per Inch	Weight per Gross Pounds	Code GP/888	Code GP/777	Price per Gross
8	7/16	18	3 1/2	ZEVMA	ZEBYX	\$8.00
8	7/16	24	3 1/2	ZEWAN	ZECTE	8.00
8	7/16	32	3 1/2	ZEWPE	ZEDEV	8.00
10	1/2	14	5	ZEVAM	ZEOV	10.00
10	1/2	18	5	ZEVSY	ZECET	10.00
10	1/2	24	5	ZEWNA	ZECWO	10.00
10	1/2	32	5	ZEWTY	ZEDTA	10.00
12	1/2	14	6 1/2	ZEVIP	ZEBVO	12.00
12	1/2	18	6 1/2	ZEVYS	ZECSA	12.00
12	1/2	24	6 1/2	ZEWOR	ZEDAT	12.00
12	1/2	32	6 1/2	ZEWUS	ZEDUZ	12.00
12	9/16	14	6 3/4	ZEVIR	ZEBVT	13.50
12	9/16	18	6 3/4	ZEVYV	ZECST	13.50
12	9/16	24	6 3/4	ZEWOT	ZEDAW	13.50

Packed one-half gross in a box.

“Goodell-Pratt” Tungsten Hack Saw Blades



Power Blades



Trade-Mark Registered U. S. Patent Office and Other Countries

A very high quality of tungsten alloy steel and painstaking methods of manufacture go into **G** Brand Power Saw Blades. The **G** stamped on these blades is guarantee of their quality. Unless otherwise specified the finest pitch will always be supplied.

Length Inches	Pitch Teeth per Inch	Width Inches	Thickness Gauge	Weight per Gross Pounds	Code	Price per Gross
12	14	5/8	.032-21	10	ZUPCY	\$16.20
12	18	5/8	.032-21	10	ZUPIX	16.20
12	14	3/4	.032-21	11 1/2	ZUPUB	19.44
12	18	3/4	.032-21	11 1/2	ZUPVA	19.44
12	10	3/4	.049-18	17 3/4	ZURAY	24.48
12	14	3/4	.049-18	17 3/4	ZUREX	24.48
12	10	1	.049-18	23	ZURID	32.64
12	14	1	.049-18	23	ZUROC	32.64
14	14	3/4	.032-21	13 1/2	ZUROM	28.56
14	10	3/4	.049-18	20	ZURUD	28.56
14	14	3/4	.049-18	20	ZURZE	28.56
14	10	1	.049-18	23 1/2	ZUSAZ	38.08
14	14	1	.049-18	23 1/2	ZUSBE	38.08
14	10	1 1/4	.065-16	36	ZUSIC	58.80
17	10	1	.049-18	33	ZUSZA	46.24
17	14	1	.049-18	33	ZUTAB	46.24
17	10	1 1/4	.065-16	45	ZUTID	71.40
18	10	1 1/4	.065-16	58 1/2	ZUVCA	75.60
21	10	1 1/2	.065-16	72	ZUVGO	105.84
24	10	1 1/2	.065-16	96	ZUVOG	120.96

No. 21 Gauge blades packed one-half gross in a box; No. 18 Gauge, 10 inches and 12 inches by 3/4 inch, one-third gross; No. 18 Gauge, 14 inches by 3/4 inch, one-fourth gross; Nos. 18 Gauge and 16 Gauge, by 1 inch, one-fourth gross; Nos. 18 Gauge and 16 Gauge, over 1 inch, one-twelfth gross.

No. 70 Circular Saws

These moderately priced circular saws are most satisfactory for cutting copper, brass, silver, bakelite, fibre, ivory, bone and similar materials.

Exceptional quality is obtained by use of the highest grade of hot rolled sheet steel. The teeth are carefully cut and oil tempered making them well suited for screw slotting or cutting shallow slots in iron or steel.

Made in six thicknesses—.016, .021, .028, .032, .040 and .050 inch.

Diameter
2 inches
2 1/2 inches
3 inches

Hole
3/8 inch
3/4 inch
1/2 inch

Code
YAMAD
YAMBO
YAMCY

Packed one dozen in a box.

Price per Dozen
\$3.50
3.50
4.40



BLU-MOL

MOLYBDENUM

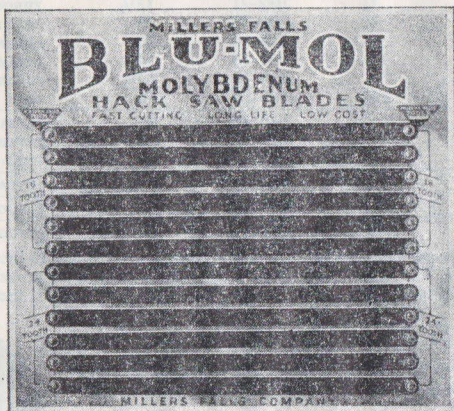
HACK SAW BLADES

Blu-Mol Blades are made of special analysis molybdenum alloy steel developed by the country's leading research laboratories. The rapid progress made in the perfecting of molybdenum steels is attributable largely to the interest and co-operation of the U. S. Government.

The performance of molybdenum steel is dependent to an unusual degree on the methods and exactness used in its heat-treatment. The treatment of Blu-Mol Blades was determined only after extensive experiments and exhaustive tests had pointed out the precise procedure necessary to produce maximum performance, durability and uniformity.

These tests run on tungsten, chrome nickel and ordinary steels at high speeds proved Blu-Mol superiority beyond any doubt. Their outstanding performance equals that of the best high speed steel blades on many classes of work. Their low cost, fast cutting ability and long life insure the user the lowest cost per cut of any blade ever produced.

Blu-Mol Blades set an entirely new standard for hack sawing efficiency. An unbiased test on your own work by your own operators will substantiate this broad claim to your entire satisfaction and profit.



A sales stimulating counter display of twelve 10-inch Blu-Mol molybdenum blades, ½ dozen No. 1018 M with 18 teeth per inch and ½ dozen No. 1024 M with 24 teeth per inch.

The card is attractively designed and printed in gold, red and blue on heavy stock and is supplied with a sturdy double easel, making a very substantial fixture.

The blades are affixed with split brass stationary binders and are easily removed.

No. 2000 M	Display Complete	Weight ¾ lb.	Code Z00LU	Price Each \$3.35
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Packed one display in a heavy envelope.

Blu-Mol Molybdenum High Speed Hack Saw Blades

Blu-Mol Molybdenum Hand and Power Blades are made under both the "Millers Falls" and "Universal" Brands. The use of the proper cutting solution and the correct selection of width, thickness, pitch and speed of blade are essential to maximum performance. We recommend consultation on these specifications. In general 140 strokes per minute are recommended with about 80 pounds pressure on a medium power blade such as 1 inch 16 Gauge, equivalent to 40 pounds at the handle used for lifting the saw. For heavier blades greater pressures should be used.

used.

UNI  **VER** **SAL**

Registered Trade-Mark

Specify
Brand and Number



Registered Trade-Mark



No.	Pitch			Hand Blades		Code	Code "Universal"	Price per Gross
	Length Inches	Teeth per Inch	Width Inches	Thickness Gauge	Weight per Gross, Lbs.	"Millers Falls"		
1018M	10	18	1/2	.025-23	5	ZUPAW	ZODFA	\$40.00
1024M	10	24	1/2	.025-23	5	ZUPBA	ZODGE	40.00
1032M	10	32	1/2	.025-23	5	ZUPCE	ZODJA	40.00
1058M	10	18	5/8	.032-21	8 1/4	ZUPCO	ZODKU	67.50
1214M	12	14	1/2	.025-23	6 1/8	ZUPDI	ZODLO	48.00
1218M	12	18	1/2	.025-23	6 1/8	ZUPEO	ZODOG	48.00
1224M	12	24	1/2	.025-23	6 1/8	ZUPFU	ZODUM	48.00
1232M	12	32	1/2	.025-23	6 1/8	ZUPGY	ZODYR	48.00
1258M	12	18	5/8	.032-21	10 1/2	ZUPGA	ZODZA	81.00

Power Machine Blades

2414M	12	14	1	.049-18	24½	ZUPHA	ZOEAS	\$120.96
2406M	12	6	1	.065-16	30	ZUPIO	ZOECF	120.96
2410M	12	10	1	.065-16	30	ZUPJY	ZOEJL	120.96
4414M	14	14	1	.049-18	27½	ZUPKE	ZOELO	141.12
4406M	14	6	1	.065-16	34	ZUPIO	ZOEMP	141.12
4410M	14	10	1	.065-16	34	ZUPLY	ZOERT	141.12
4504M	14	4	1¼	.065-16	46	ZUPMA	ZOEVA	176.40
4506M	14	6	1¼	.065-16	46	ZUPME	ZOEYV	176.40
4510M	14	10	1¼	.065-16	46	ZUPNI	ZOFAG	176.40
7414M	17	14	1	.049-18	33	ZUPNO	ZOFGA	171.36
7406M	17	6	1	.065-16	41½	ZUPOO	ZOFHE	171.36
7410M	17	10	1	.065-16	41½	ZUPOY	ZOFIJ	171.36
7504M	17	4	1¼	.065-16	58	ZUPPA	ZOFKO	214.20
7506M	17	6	1¼	.065-16	58	ZUPPO	ZOFME	214.20
7510M	17	10	1¼	.065-16	58	ZUPRA	ZOFNL	214.20
8410M	18	10	1	.065-16	44½	ZUPRE	ZOFOC	181.44
8504M	18	4	1¼	.065-16	62	ZUPSI	ZOFUD	226.80
8506M	18	6	1¼	.065-16	62	ZUPSO	ZOGAH	226.80
8510M	18	10	1¼	.065-16	62	ZUPSY	ZUGAL	226.80
1604M	21	4	1½	.065-16	90	ZUPTA	ZOGHA	317.52
1606M	21	6	1½	.065-16	90	ZUPTY	ZOGIK	317.52
1610M	21	10	1½	.065-16	90	ZUPUZ	ZOGJE	317.52
4606M	24	6	1½	.065-16	102	ZUPVY	ZOGL0	362.88
4610M	24	10	1½	.065-16	102	ZUPWE	ZOGNY	362.88

High Speed Steel Hack Saw Blades

Specify
Brand and Number

Registered Trade-Mark

Registered Trade-Mark



Developed for fast cutting of very hard carbon tool steels, chrome nickel, high speed and other alloy steels and monel metal, nichrome, etc. The life is much longer than any tungsten blade and the cutting speed far faster, making them more economical on many production jobs in spite of their greater first cost. Selection of the best width, thickness, pitch and speed of blade for a particular job is most important, as is the use of a cutting solution. Consult us for recommendations.

Made in both "Millers Falls" and "Universal" Brands.

Hand Blades

No.	Length Inches	Pitch Teeth per Inch	Width Inches	Thickness Gauge	Weight per Gross Pounds	Code "Millers Falls"	Code "Universal"	Price per Gross
1018	10	18	$\frac{9}{16}$	.025	5	ZUFAM	ZOGOL	\$40.32
1024	10	24	$\frac{9}{16}$	.025	5	ZUFAX	ZOGUM	40.32
1032	10	32	$\frac{9}{16}$	.025	5	ZUFBA	ZOGLY	40.32
1214	12	14	$\frac{9}{16}$	.025	$6\frac{1}{8}$	ZUPDI	ZOHAF	48.96
1218	12	18	$\frac{9}{16}$	.025	$6\frac{1}{8}$	ZUFBE	ZOHAM	48.96
1224	12	24	$\frac{9}{16}$	.025	$6\frac{1}{8}$	ZUFCE	ZOHED	48.96
1232	12	32	$\frac{9}{16}$	.025	$6\frac{1}{8}$	ZUFCE	ZOHIC	48.96

Power Machine Blades

2414	12	14	1	.049	24 $\frac{1}{2}$	ZUFEE	ZOHLR	\$172.80
2406	12	6	1	.065	30	ZUFDA	ZOHUE	172.80
2410	12	10	1	.065	30	ZUFEL	ZOHKA	172.80
4414	14	14	1	.049	27 $\frac{1}{2}$	ZUFIA	ZOHRN	201.60
4406	14	6	1	.065	34	ZUFGI	ZOHMI	201.60
4410	14	10	1	.065	34	ZUFHO	ZOHPO	201.60
4504	14	4	1 $\frac{1}{4}$	.065	46	ZUFJY	ZOHST	252.00
4506	14	6	1 $\frac{1}{4}$	.065	46	ZUFKE	ZOHUR	252.00
4510	14	10	1 $\frac{1}{4}$	.065	46	ZUFLO	ZOHYP	252.00
7414	17	14	1	.049	33	ZUFOR	ZOIPT	244.80
7406	17	6	1	.065	41 $\frac{1}{2}$	ZUFMA	ZOIJM	244.80
7410	17	10	1	.065	41 $\frac{1}{2}$	ZUFNI	ZOILP	244.80
7504	17	4	1 $\frac{1}{4}$	.065	58	ZUFOX	ZOIRV	306.00
7506	17	6	1 $\frac{1}{4}$	.065	58	ZUFPPY	ZOITY	306.00
7510	17	10	1 $\frac{1}{4}$	.065	58	ZUFRA	ZOIZD	306.00
8410	18	10	1	.065	44 $\frac{1}{2}$	ZUFRO	ZOJAK	259.20
8504	18	4	1 $\frac{1}{4}$	.065	62	ZUFSE	ZOJEL	324.00
8506	18	6	1 $\frac{1}{4}$	.065	62	ZUFSE	ZOJKA	324.00
8510	18	10	1 $\frac{1}{4}$	.065	62	ZUFST	ZOJKO	324.00
1604	21	4	1 $\frac{1}{2}$	.065	90	ZUFTA	ZOJLE	453.60
1606	21	6	1 $\frac{1}{2}$	.065	90	ZUFUG	ZOJNO	453.60
1610	21	10	1 $\frac{1}{2}$	.065	90	ZUFVO	ZOJON	453.60
4606	24	6	1 $\frac{1}{2}$	.065	102	ZUFWY	ZOJUP	518.40
4610	24	10	1 $\frac{1}{2}$	.065	102	ZUFXE	ZOJVA	518.40

"Tuf-flex"



Made under both the Millers Falls and Universal Brands

Tuf-flex is an amazing blade—an entirely new type made from a new analysis steel. It is super-tough, super-flexible and super-hard for a flexible blade. It stands a remarkable amount of abuse on the thinnest sheets, tubing or gutter pipe without stripping the teeth and will stand a surprising number of severe side strains without breaking.

At the bench in the hands of the experienced mechanic, Tuf-flex gives equally wonderful performance. On drill rod, tool steels and similar hard materials its performance is equal to many all hard tungsten blades.

In fact Tuf-flex performance on any class of work is so surprising that many dealers will use it in place of present and duplicating stocks of all hard and flexible blades.

Tuf-flex is guaranteed to be the most economical general purpose blade ever developed. It offers the trade a great profit opportunity through its ability to win in competitive tests.

No.	Length Inches	Teeth per Inch	Width Inch	Weight per Gross Pounds	Code "Millers Falls"	Code "Universal"	Price per Gross
51FH	8	18	$\frac{7}{16}$	3½	ZOGOL	ZOCAD	\$8.00
61FH	8	24	$\frac{7}{16}$	3½	ZOGUM	ZOCEF	8.00
71FH	8	32	$\frac{7}{16}$	3½	ZOBYN	ZOCFE	8.00
43FH	10	14	$\frac{1}{2}$	5	ZOHAJ	ZOCHO	10.00
53FH	10	18	$\frac{1}{2}$	5	ZOHEK	ZOCIG	10.00
63FH	10	24	$\frac{1}{2}$	5	ZOHIL	ZOCKY	10.00
73FH	10	32	$\frac{1}{2}$	5	ZOHJA	ZOCOH	10.00
45FH	12	14	$\frac{1}{2}$	6½	ZOHKE	ZOCUJ	12.00
55FH	12	18	$\frac{1}{2}$	6½	ZOHMO	ZOCUM	12.00
65FH	12	24	$\frac{1}{2}$	6½	ZOHYP	ZOCUT	12.00
75FH	12	32	$\frac{1}{2}$	6½	ZOHYP	ZOCYK	12.00

Packed one-half gross in a box.

No. 10FH "Tuf-flex" Counter Display

A brand new idea for a big quick build-up of hack saw blade sales is embodied in this colorful counter display unit. The display holds 24 individual cartons each holding three 10-inch Tuf-flex Blades—one each 18, 24 and 32 tooth or a total of ½ gross.

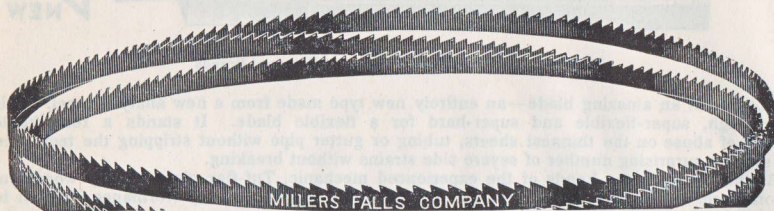
There are a number of reasons why this merchandiser is proving so successful. The product itself has unusual merit. It facilitates handling of small sales. It originates many sales to mechanics and craftsmen. It increases the unit of sale. It leads to larger sales from regular stock. It's entirely free.

No. 10FH Tuf-flex Display complete
with ½ gross blades \$5.00

Subject to regular Hack Saw Discounts. Packed one in a box. Weight, 3½ lbs.



"Millers Falls" Metal Cutting Band Saws



Flexible Back

Developed to meet present-day metal cutting requirements, "Millers Falls" Band Saws represent years of experience in the field on all types of machines and every conceivable class of work.

Two Types of Steel

Maximum performance and service require two types of steel in bands. One, designated as Type "F," for stainless steels, hard bar stock and ferrous metals in general, and Type "NF," for non-ferrous metals and such shapes as pipe tubing and light structural shapes where severe strain on the teeth is encountered.

Two Tempers

Hardening and tempering are held within very close limits by the use of the best modern, automatically controlled equipment. Every step in the heat-treatment is exact and insures uniformity of temper and quality. Two tempers are supplied. Temper "H" provides a hard, tough tooth for cutting all metals. Temper "HH" is exceptionally hard and is recommended for cutting asbestos products, slate, fibre and similar materials.

Two Sets

The standard or straight set, designated as set "SS," is supplied unless otherwise specified as it produces a uniformly smooth, accurate cut on all classes of general work. Wavy set, designated as "WS," for cutting very thin sheets, tubing, wire, molding, etc., can be furnished but on special order only.

Recommendations for Selection of Pitches, Temper and Speed

Material	Teeth per Inch	Temper	Speed Feet per Min.
Aluminum Alloy	12-14	H	150
Aluminum, Pure	6-8	H	3000
Asbestos Sheets	14	HH	150
Brass Castings, Soft	10-12	H	500
Brass Castings, Hard	12-14	H	150
Brass Sheets	14	H	1000
Bronze Castings	12-14	H	800
Bakelite	10	H	800
Cast Iron	14	H	150
Copper	10-12	H	200
Carbon Tool Steel	14	H	100
Cold Rolled Steel	10-12	H	200
Drill Rod	14	H	100

Material	Teeth per Inch	Temper	Speed Feet per Min.
Fibre	14	HH	500
High Speed Steel	12	H	100
Iron Sheets	18	H	200
Machinery Steel	10-12	H	200
Manganese Bronze	12	H	150
Malleable Iron	12	H	200
Nickel Silver	22	H	100
Nickel Steel	14	H	100
Pipe Iron	12-14	H	150
Slate	10-14	HH	80
Structural Steel	12-14	H	150
Tubing, Brass	14-18	H	300
Tubing, Steel	14-18	H	150

See following page for sizes and prices.

“Millers Falls” Metal Cutting Band Saws

Hard Teeth Flexible Back

When ordering give the following information if possible: Length of saw if welded. Material to be cut. Thickness of section to be cut. Specify number of teeth per inch. Speed of saw in feet per minute. Pitch and widths of saw previously used. If trouble has been experienced in the past give full particulars and state whether work is scroll or straight cutting.

Standard List Prices in Coils or Cut to Length

Width Inches	Thickness and Gauge	Teeth per Inch	Weight Pounds per 100 Feet	List Price per Foot
$\frac{3}{16}$	.025-23	14-18-24-32	1.43	\$0.08
$\frac{1}{4}$	.025-23	14-18-24-32	1.96	.09
$\frac{3}{8}$	.025-23	10-12-14-18-24-32	3.01	.10
$\frac{1}{2}$	.025-23	10-12-14-18-24-32	4.07	.11
$\frac{5}{8}$	.031-21	8-10-12-14-18-24-32	6.31	.14
$\frac{3}{4}$	.031-21	6-8-10-12-14-18-24	7.62	.16
1	.036-20	6-8-10-12-14-18-24	11.88	.20

Welds: $\frac{3}{16}$, $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ inch widths **\$0.40 each**
 $\frac{5}{8}$, $\frac{3}{4}$ and 1 inch widths .50 each

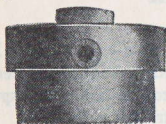
Please specify length, width, gauge, teeth per inch and temper of blade wanted. Six inches or more over the even foot on welded saws considered a full foot additional length.

Standard List Cut to Length and Brazed or Welded

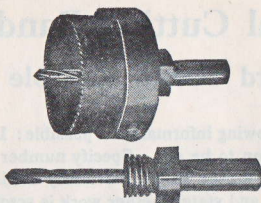
Lengths Inclusive	$\frac{3}{16}$ " .025"	$\frac{1}{4}$ " .025"	$\frac{3}{8}$ " .025"	$\frac{1}{2}$ " .025"	$\frac{5}{8}$ " .032"	$\frac{3}{4}$ " .032"	1" .035"
5' 6" to 6' 5"	\$0.88	\$0.94	\$1.00	\$1.06	\$1.34	\$1.46	\$1.70
6' 6" to 7' 5"	.96	1.03	1.10	1.17	1.48	1.62	1.90
7' 6" to 8' 5"	1.04	1.12	1.20	1.28	1.62	1.78	2.10
8' 6" to 9' 5"	1.12	1.21	1.30	1.39	1.76	1.94	2.30
9' 6" to 10' 5"	1.20	1.30	1.40	1.50	1.90	2.10	2.50
10' 6" to 11' 5"	1.28	1.39	1.50	1.61	2.04	2.26	2.70
11' 6" to 12' 5"	1.36	1.48	1.60	1.72	2.18	2.42	2.90
12' 6" to 13' 5"	1.44	1.57	1.70	1.83	2.32	2.58	3.10
13' 6" to 14' 5"	1.52	1.66	1.80	1.94	2.46	2.74	3.30
14' 6" to 15' 5"	1.60	1.75	1.90	2.05	2.60	2.90	3.50
15' 6" to 16' 5"	1.68	1.84	2.00	2.16	2.74	3.06	3.70
16' 6" to 17' 5"	1.76	1.93	2.10	2.27	2.88	3.22	3.90
17' 6" to 18' 5"	1.84	2.02	2.20	2.38	3.02	3.38	4.10
18' 6" to 19' 5"	1.92	2.11	2.30	2.49	3.16	3.54	4.30
19' 6" to 20' 5"	2.00	2.20	2.40	2.60	3.30	3.70	4.50
20' 6" to 21' 5"	2.08	2.29	2.50	2.71	3.44	3.86	4.70

This list is compiled on a basis to include all sizes now in use, and is to be used on all cut-to-length orders.

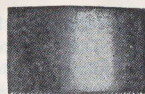
High Speed Steel Hole Saws



Cup and Saw



Mandrel



Saw

Made of the finest quality of high speed steel, these hole saws are finding an ever increasing field of usefulness. They were developed originally for the use of auto mechanics, plumbers, steamfitters, millwrights and electricians, but more recently are finding their way on to special production jobs in industry.

They are made in thirty-one sizes ranging from $\frac{3}{4}$ inch to $5\frac{1}{8}$ inches in diameter with special sizes available at a slight additional charge and are suitable for cutting fast, clean holes in steel, cast-iron, hard or soft woods, bakelite, slate, fibre, plaster board and many other materials.

They can be used in electric drills or power drill presses at high peripheral speeds and will cut many more holes than an ordinary carbon steel saw.

The cups and mandrels can be used indefinitely. The blades and pilot drills can be replaced at small expense when worn out.

For proper sizes of saw for pipe taps, pipe and conduit entrance sizes, see last two columns below.

Sizes $\frac{3}{4}$ inch to $1\frac{1}{8}$ inches inclusive have 10 teeth per inch, sizes $1\frac{1}{8}$ inches to $1\frac{3}{8}$ inches inclusive 8 teeth per inch, and sizes 2 inches to $5\frac{1}{8}$ inches inclusive 6 teeth per inch. Sizes $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{1}{2}$ and $1\frac{3}{4}$ inches can be furnished with 8 teeth per inch if desired. And sizes 2, $2\frac{1}{2}$ and 3 inches in 4 teeth.

Standard Cutting Depth $\frac{7}{8}$ Inch

Size Inches	Cup and Saw			Saw Only			For Pipe Entrance			For Pipe Entrance		
	No.	Price		No.	Price		Tap Size	Size		Tap Size	Size	
$\frac{3}{4}$	12	\$1.55		012	\$0.75			$\frac{3}{4}$			2	
$\frac{7}{8}$	14	1.55		014	.75			$\frac{1}{2}$				
$1\frac{1}{16}$	15	1.55		015	.75					$2\frac{1}{2}$		
1	16	1.55		016	.75							
$1\frac{1}{8}$	17	1.55		017	.75		1				$2\frac{1}{2}$	
$1\frac{1}{4}$	18	1.55		018	.75			$\frac{3}{4}$				
$1\frac{3}{8}$	20	1.55		020	.75					3		
$1\frac{1}{2}$	22	1.55		022	.75			1				
$1\frac{3}{4}$	24	1.55		024	.75		$1\frac{1}{4}$					
2	26	1.90		026	1.10			$1\frac{1}{4}$			3	
$2\frac{1}{8}$	28	1.90		028	1.10		$1\frac{1}{2}$	$1\frac{1}{4}$			$3\frac{1}{2}$	
$2\frac{1}{4}$	30	1.90		030	1.10			$1\frac{1}{2}$				
2	32	1.90		032	1.10					$4\frac{1}{2}$	4	
$2\frac{1}{2}$	34	2.30		034	1.55		2					
$2\frac{3}{4}$	36	2.30		036	1.55							
3	38	2.30		038	1.55							

Extra Deep Cutting Depth $1\frac{1}{8}$ Inches

1 1/2	246	\$1.90	0246	\$1.10	1 1/4	3	486	\$3.10	0486	\$2.30	2 1/2
1 3/4	286	2.25	0286	1.45	1 1/2	3 1/4	526	3.10	0526	2.30	3
2	326	2.40	0326	2.00		3 1/2	566	3.10	0566	2.30	
2 1/4	366	3.00	0366	2.20	2	3 5/8	586	3.25	0586	2.45	3
2 1/2	406	3.10	0406	2.30	2	All sizes of Special Deep Saws have 4 teeth per inch.					

All sizes of Special Deep Saws have 4 teeth per inch.

Mandrels

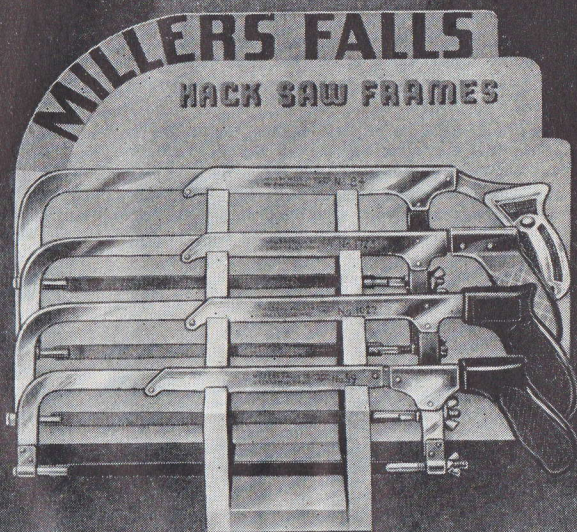
Mandrels are furnished complete with pilot drill and spring. Drills quickly renewable.

No.	Fitting Sizes	Nos.	Price Each	No.	Fitting Sizes	Nos.	Price Each
No. 1218	Fitting Sizes Nos. 12 to 18 inclusive		\$1.10	No. 5890	Fitting Sizes Nos. 58 to 90 inclusive		\$1.10
No. 2054	Fitting Sizes Nos. 20 to 56 inclusive		1.10		Extra Pilot Drills		.35

Packed one in a box.



HACK SAW FRAMES



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLER'S FALLS
TOOLS**
SINCE
1868

No. 84 Hack Saw Frame

✓
NEW



The Finest Frame Ever Made. Fitted with a "Blu-Mol" Molybdenum Blade

The new No. 84 has been brought out to head the Millers Falls line and satisfy the demand for a super-quality frame—a frame that will give several generations of service, has fine balance and an exceptionally fine lasting finish.

The frame is made of fine quality steel $\frac{3}{16}$ inch thick by $1\frac{1}{16}$ inch wide and the back of hard, tough steel $\frac{1}{4}$ inch thick. The rear portion of the frame stamped from $\frac{3}{16}$ -inch steel affords a rigid support for the handle and a guard that gives complete protection to the hand.

The handle is made of indestructible, transparent red "Permaloid" comfortably shaped and checked to afford a good grip.

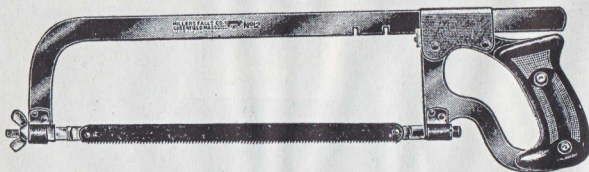
Easily adjustable for 8 to 12 inch blades which are held by sturdy round studs with heavy pins set in clips that permit facing the blade in four directions. Any desired tension on the blade can be secured by turning up the large wing nut at the rear.

Each frame equipped with a Millers Falls "Blu-Mol" Molybdenum Hack Saw Blade, the sensational new blade guaranteed to give the lowest-cost-per-cut of any blade manufactured.

Beautifully polished, heavily nickel plated and buffed throughout.

No. 84	Capacity 8-12 inches	Depth $3\frac{1}{4}$ inches	Stock $\frac{3}{16}$ x $1\frac{1}{16}$ inch	Weight 1 lb., 15 ozs.	Price Each \$3.50
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No. 12 Hack Saw Frame

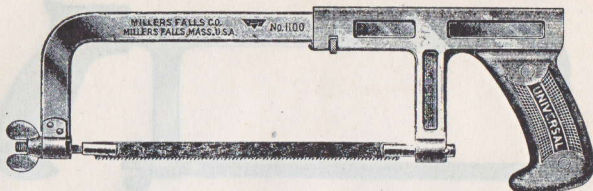


A heavy, rigid, all-steel frame with a positive adjustment for 8 to 12 inch blades and equipped with a fully protected pistol grip handle. Special, checked black composition handle plates screwed on both sides. Blades strained by means of thumb nut and can be faced in four directions. One 10-inch blade furnished with each frame.

All exposed metal parts nicely polished, nicked and buffed.

No. 12	Capacity 8-12 inches	Depth $3\frac{1}{8}$ inches	Stock $\frac{3}{16}$ x $1\frac{1}{16}$ inch	Weight 2 lbs.	Code 1C1AN	Price Each \$3.40
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No. 1100 Hack Saw Frame



An exceptionally strong, rigid, all-metal frame with a one-piece solid steel back that telescopes into the frame casting. Checked pistol grip handle. Adjustable for 8 to 12 inch blades. Blades faceable in four directions. Thumb nut blade tension. One 10-inch blade furnished with each frame. Entire frame "Sheradized" to prevent rusting.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 1100	8-12 inches	3 1/8 inches	3/16 x 1 3/16 inch	1 1/4 lbs.	ICRY	\$2.70

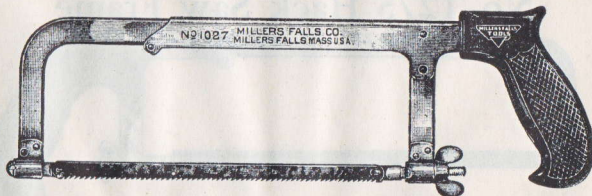
No. 48 Hack Saw Frame



For design, serviceability and price appeal in the higher quality field this frame has never been approached. Its unusual rigidity and fine balance, combined with its finely polished, nickel-plated and buffed finish, are sure to make it one of the year's best sellers. Comfortable checked composition pistol grip handle. Adjustable for 8 to 12 inch blades. Equipped with one 10-inch blade.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 48	8-12 inches	3 1/4 inches	3/16 x 1 1/16 inch	1 3/4 lbs.	INPAR	\$2.20
Packed one in a box.						

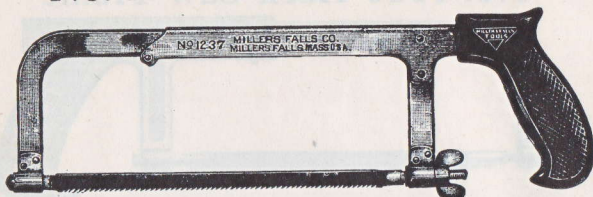
No. 1027 Hack Saw Frame



A fine quality frame that appeals instantly to the tool-wise purchaser. The heavy back reinforcement extends down the entire length of the molded black pistol grip handle, making it practically unbreakable. The hang is excellent. Adjustable for 8 to 12 inch blades which can be faced in four directions. Equipped with one 10-inch blade. Finely polished, nickel plated and buffed.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 1027	8-12 inches	3 1/4 inches	3/16 x 1 1/16 inch	1 3/4 lbs.	ICHNO	\$1.80

No. 1237 Hack Saw Frame



A substantial and serviceable frame with specially reinforced back and fitted with the popular black composition pistol grip handle. Easily adjustable for 8 to 12 inch blades which can be faced in four directions. Equipped with one 10-inch blade. Nicely finished in buffed nickel.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 1237	8-12 inches	3 1/4 inches	3/16 x 1 1/16 inch	1 3/4 lbs.	INVER	\$1.20

Packed one in a box.

No. 99 Hack Saw Frame



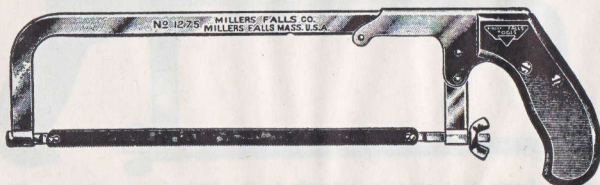
A serviceable frame offered at a very attractive price. The handle is made of black composition, reinforced its entire length, knurled and shaped to give a sure, comfortable grip. The balance is excellent. The frame construction is substantial and permits ample tension on the blade by means of a wing nut. Blade can be faced four ways. Equipped with one 10-inch hack saw blade. Quickly and positively adjustable for 8 to 12 inch blades.

All exposed metal parts nickel plated and buffed.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 99	8-12 inches	2 3/4 inches	5/32 x 1 1/16 inch	1 1/8 lbs.	INNOT	\$0.75

Packed two in a box.

No. 1275 Hack Saw Frame

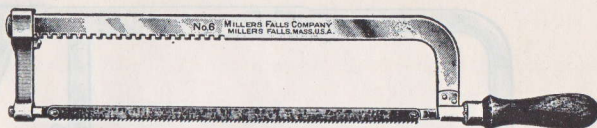


Equipped with a comfortable wood, pistol grip handle. Adjustable for 8 to 12 inch blades. Blades can be faced in four directions. Nickel finish. One 10-inch blade furnished with each frame.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 1275	8-12 inches	2 1/2 inches	3/16 x 1 1/16 inch	1 1/4 lbs.	IMOTA	\$0.75

Packed two in a box.

No. 6 Hack Saw Frame



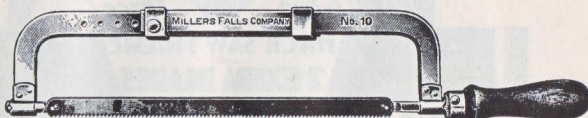
A compact, rigid frame with a solid back and adjustable for 8 to 12 inch blades by moving the sliding end post. Tension on blade secured by turning handle. Blade can be faced in four directions. One 10-inch blade furnished with each frame.

Entire tool well polished and nickel plated. Attractive tropical hardwood handle.

No. 6	Capacity	Depth	Stock	Weight	Code	Price Each
	8-12 inches	2 3/4 inches	3/16 x 1 3/16 inch	1 1/2 lbs.	ICONO	\$2.60

Packed one in a box.

No. 10 Hack Saw Frame



Unusually rigid back construction. Locked for different length blades by means of set screw. Tension on blade secured by turning handle. Blade can be faced in four directions. One 10-inch blade furnished with each frame. Attractive tropical hardwood handle.

No. 10	Capacity	Depth	Stock	Weight	Code	Price Each
	8-12 inches	2 3/8 inches	3/16 x 1 1/16 inch	1 1/4 lbs.	ICING	\$2.60

Packed one in a box.

No. 78 Hack Saw Frame



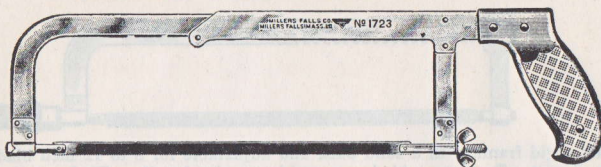
A light, stiff frame at a low price. Adjustable for 8 to 12 inch blades. Blade tension secured by means of thumb nut. Blades can be faced in four directions. Mahogany finished hardwood handle. One 10-inch blade furnished with each frame.

Frame polished and nickel plated.

No. 78	Capacity	Depth	Stock	Weight	Code	Price Each
	8-12 inches	2 1/2 inches	5/32 x 1 1/16 inch	1 lb.	IDLER	\$0.80

Packed one in a box.

No. 1723 Hack Saw Frame

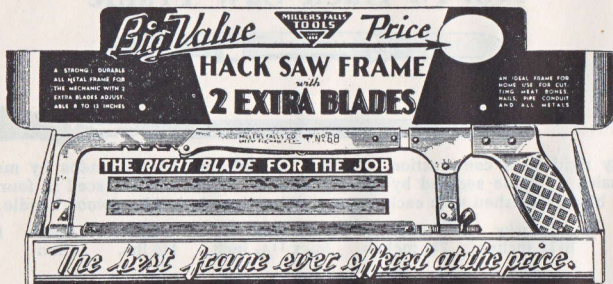


A serviceable, all-metal frame adjustable for 8 to 12 inch blades. Pressed steel pistol grip handle checked to give a good, sure grip. Blades can be faced four ways. Thumb nut provides ample tension on blade. One 10-inch blade furnished with each frame. Entire frame nicely polished, nickel plated and buffed.

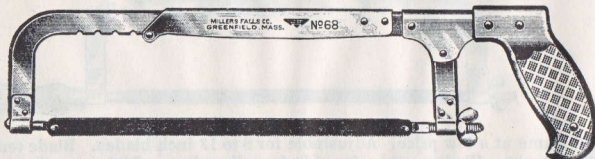
No. 1723	Throat 3½ inches	Stock ¾ x 1½ inch	Weight 1½ lbs.	Code IMPEL	Price Each \$1.40
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Packed one in a box.

No. 68 Hack Saw Frame



A fast selling combination of a good rigid all-metal adjustable frame and three 10-inch hack saw blades—two 18-tooth and one 24-tooth—recognized instantly by mechanics and home craftsmen as a big value. Each frame with three blades packed in the attractive two-color display carton illustrated.

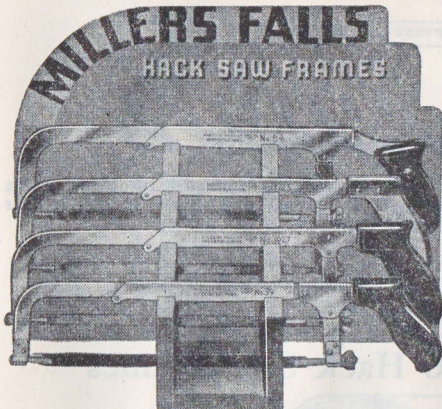


Frame well constructed throughout and fitted with an indestructible all-metal pistol grip handle. It is adjustable for 8 to 12 inch blades which may be faced in any of four directions. Thumb nut provides blade tension. Entire tool well nicked and buffed.

No. 68	Throat 2¾ inches	Stock ⅝ x 1½ inch	Weight 1⅓ lbs.	Code INROT	Price Each \$1.20
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Packed one in a display; two displays in a package.

No. 8400 Hack Saw Frame Display NEW



Illustrated in color on page 143

Offered absolutely free to any dealer stocking or willing to place a reasonable stock order for a representative assortment of Millers Falls Hack Saw Frames.

Made entirely of wood, finished in glossy red lacquer with gold and black lettering, this fixture will hold any four frames in the line with the exception of the heavy, deep throated numbers.

Sales of hack saw frames, particularly the better quality frames, will show a gratifying increase where this compelling display is used. Use it to promote the sale of the new No. 84, "the finest hack saw frame ever made," now equipped with a genuine Blu-Mol Molybdenum blade and such other quality numbers as 1027, 6, 10, 68, 12 and 48.

No. 237 Keyhole Hack Saw



MADE IN U.S.A. BY - **GOODSELL-PRATT COMPANY** GREENFIELD, MASSACHUSETTS

Cuts nails, metal lath, plaster board, stucco, armoured cable, conduit, packing, bone, bakelite, fibre, hard and soft wood, etc., etc. Great for use in the corners where an ordinary hack saw frame cannot be used.

Mounted on an attractive two-color display card this unique tool is one of the fastest selling items on the market.

The handle is nicely finished in red and black enamel; it is light and fits the hand comfortably. The blade, with 18 teeth per inch, is made of the same materials and with exactly the same care as our regular hack saw blades. It has a flexible back which minimizes breakage.

No.	Length Blade	Length Overall	Weight	Code	Price Each
No. 237	5½ inches	9½ inches	4 ozs.	YEYAT	\$0.30
No. 7	Extra blades, 18 tooth			YEYDB	Price per Dozen
No. 8	Extra blades, 24 tooth			YEYGA	\$1.70
					1.70

Packed six saws or one dozen blades in a box.

No. 1200 Hack Saw Frame



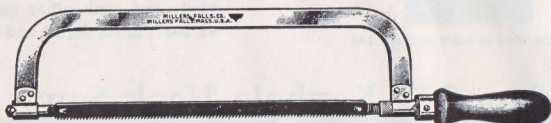
A solid frame with black composition pistol grip handle built to stand hard usage. Holds 12-inch blades only. Blade tension secured by turning thumb nut. Blade faceable in four directions. One 12-inch blade furnished with each frame.

Frame nicely polished and nickel plated.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 1200	12 inches	3½ inches	3/16 x 1 13/16 inch	1½ lbs.	IMAGE	\$1.80

Packed one in a box.

Nos. 125 and 126 Hack Saw Frames



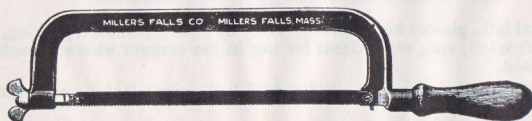
Well made, low priced solid frames that can be depended on to deliver a wealth of satisfactory service. Blade tension secured by turning handle. Blades faceable in four directions. One blade furnished with each frame.

Nickel plated. Mahogany finished hardwood handle.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 125	10 inches	3¼ inches	3/16 x 1 11/16 inch	1 lb.	IMBED	\$0.90
No. 126	12 inches	3½ inches	3/16 x 1 11/16 inch	1¼ lbs.	IMBUE	1.00

Packed one in a box.

Nos. 4A-4D Cast Hack Saw Frames

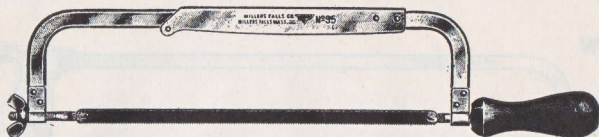


Black enameled, cast gray iron frames equipped with mahogany finished hardwood handles. Blade tension secured by means of thumb nut. Blade faceable in four directions. No blades furnished with these frames.

	Capacity	Depth	Weight	Code	Price Each
No. 4A	8 inches	2¼ inches	1 lb.	IMIDE	\$0.65
No. 4B	9 inches	2¼ inches	1½ lbs.	IMPLY	.70
No. 4C	10 inches	2¼ inches	1½ lbs.	IMPOR	.70
No. 4D	12 inches	2¼ inches	1½ lbs.	IMANE	.80

Packed six in a box.

No. 95 Hack Saw Frame



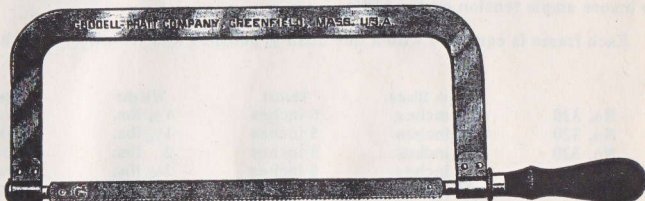
A light frame with adjustable sheath back. Blade faceable in four directions. Thumb nut tension of blade. One 8-inch blade furnished with each frame.

Frame nickel plated. Hardwood handle mahogany finished.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 95	8-12 inches	2½ inches	5/32 x 1½ inch	13 ozs.	IMMIX	\$0.60

Packed one in a box.

Heavy Hack Saw Frames



Made for extra heavy work on rods and bars, structural shapes, etc. The heavy backs have smooth, even bends. Blade tension secured by turning handle. Blades faceable in four directions. One 12-inch blade furnished with each frame.

Attractively finished in black enamel. Mahogany finished hardwood handles.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 66B	12 inches	3½ inches	¼ x 1 inch	1¾ lbs.	YAKAB	\$2.70
No. 14B	12 inches	5¼ inches	¼ x 1 inch	2 lbs.	WYNNA	2.60

Similar to the frames above but with slightly different construction. Blade tension secured by tightening handle. Blades faceable in four directions. One blade furnished with each frame.

No. 15 is nicely polished and nickel plated. No. 515 is black enameled. Mahogany finished hardwood handles.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 15	12 inches	5¼ inches	¼ x 1 inch	2 lbs.	IDYLL	\$3.30
No. 515	12 inches	5¼ inches	¼ x 1 inch	2 lbs.	ILIAC	2.50

Rail Saws

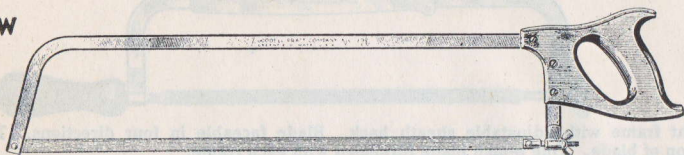
Deep throated, heavy frames for cutting steel rails, girders and other large structural steel shapes. Handles are selected beech, shaped to give a sure, comfortable grip. Thumb nut blade tension. Blades faceable in four directions. One 12-inch blade furnished with each frame. Nos. 14 and 14½ well polished and nickel plated. No. 24 has black enameled frame.

	Capacity	Depth	Stock	Weight	Code	Price Each
No. 14	12 inches	10¼ inches	¼ x 1 inch	3½ lbs.	ILEUM	\$4.60
No. 14½	12 inches	7¼ inches	¼ x 1 inch	3 lbs.	ILKON	4.30
No. 24	12 inches	10¼ inches	¼ x 1 inch	3½ lbs.	ILECK	3.00

Packed one in a box.

No. 320 Butcher Saw Frames

✓
NEW



These well made, nicely balanced and nicely finished frames are made for five lengths of blade—16, 18, 20, 22 and 24 inches.

The frames are made of $\frac{3}{4}$ -inch x $\frac{1}{4}$ -inch round edge steel, nicely polished. The handles are comfortably shaped hardwood with natural lacquer finish. Heavy wing nut and stud provided to insure ample tension on the blade.

Each frame is equipped with a fine quality, polished and tempered $\frac{5}{8}$ -inch blade.

	Length Blade	Throat	Weight	Code	Price Each
No. 320	16 inches	5 inches	1 $\frac{3}{4}$ lbs.	YILIT	\$1.40
No. 320	18 inches	5 inches	1 $\frac{7}{8}$ lbs.	YILIX	1.50
No. 320	20 inches	5 inches	2 lbs.	YILJY	1.60
No. 320	22 inches	5 inches	2 $\frac{1}{8}$ lbs.	YILLA	1.80
No. 320	24 inches	5 inches	2 $\frac{3}{8}$ lbs.	YILKO	1.90

Packed two in a box.

✓
NEW

No. 420 Butcher Saw Blades



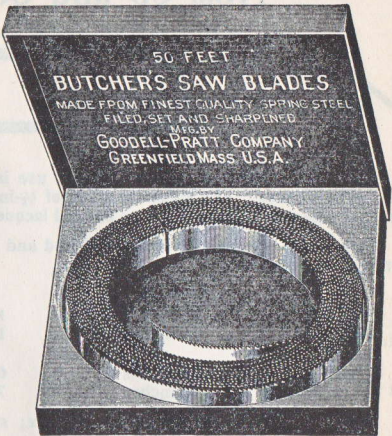
Made from the finest quality of spring steel, $\frac{5}{8}$ inch wide, tempered, ground and polished. The teeth are filed, set and re-filed after setting, making a very free, fast-cutting blade. Ends are rounded and punched to length.

	Length Blade	Width	Code	Price per Dozen
No. 420	16 inches	$\frac{5}{8}$ inch	YOJJO	\$1.90
No. 420	18 inches	$\frac{5}{8}$ inch	YOJKO	2.15
No. 420	20 inches	$\frac{5}{8}$ inch	YOJKY	2.40
No. 420	22 inches	$\frac{5}{8}$ inch	YOJLE	2.65
No. 420	24 inches	$\frac{5}{8}$ inch	YOJMA	2.85

Packed one-half gross in a box.

Butcher's Saw Blades In Coils

These butcher's saws are made from the finest quality of spring steel, tempered, ground, and polished. The teeth are filed, set, and re-filed after setting, and are consequently ready for immediate use. The teeth are correctly shaped for free cutting. They can be re-filed, but their first cost is so low that it is hardly profitable. Nothing that we can say about these saws will be so convincing as an actual trial.

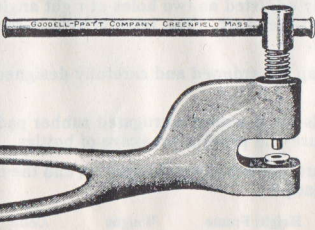


Put up in 25 and 50 foot coils as follows:

	Length	Weight	Width	Teeth per Inch	Code	Price per Coil
No. 310	50 feet	2 lbs.	1/2 inch	13	YIJON	\$5.15
No. 311	50 feet	2 1/2 lbs.	5/8 inch	11	YIJUP	5.15
No. 312	50 feet	3 1/4 lbs.	3/4 inch	11	YIKAL	6.05
No. 313	50 feet	4 lbs.	1 inch	11	YIKEM	7.35
No. 250	25 feet	1 lb.	1/2 inch	13	YIAHJ	2.60
No. 251	25 feet	1 1/4 lbs.	5/8 inch	11	YIALM	2.60
No. 252	25 feet	1 3/4 lbs.	3/4 inch	11	YIANP	3.05
No. 253	25 feet	2 1/4 lbs.	1 inch	11	YIAST	3.70

Packed one in a box.

No. 200 Saw Punch



There is so much variation in the sizes of various styles of butcher's saw frames that most of the better class of butcher's saw blades or coils are not punched when they leave the factory. All dealers in and users of these blades will find this inexpensive device very convenient for punching the necessary holes.

The frame is made of nickel-plated, malleable iron. The screw and crossbar are polished steel. The punch and die are made from fine tool steel, carefully tempered.

No. 200	Size Hole 1 1/4 inch	Length 5 3/4 inches	Weight 7 ozs.	Code YEMAJ	Price Each \$1.10
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Packed one in a box.



Nos. 83 and 86 Kitchen Saws



Well made, very low priced saws for use in the home for preparing various cuts of meat and cutting bones. The frame is made of $\frac{1}{2}$ -inch x $\frac{3}{16}$ -inch round edge steel. The handle is made of selected hardwood with a natural lacquer finish.

Each frame is equipped with a polished and tempered blade, $\frac{1}{2}$ inch wide, which is filed and set for fast, free cutting.

	Length Blade	Weight	Code	Price Each
No. 83	14 inches	$1\frac{1}{4}$ lbs.	YASIR	\$0.80
No. 86	16 inches	$1\frac{3}{8}$ lbs.	YATFU	1.00
				Price per Dozen
Extra blades	14 inches	$6\frac{1}{2}$ lbs.	YASFA	\$1.65
Extra blades	16 inches	$7\frac{3}{4}$ lbs.	YATHO	1.75

Packed one frame in a box; six dozen blades in a box.

No. 3 Bottle Capper

A simple, sturdy, well designed machine at a low price.

The frame is a heavily webbed selected casting that affords ample strength where most needed. The pinion and rack gears are machine cut from solid steel stock and carefully hardened to withstand wear and prevent breakage.

The height of the cap seal is easily and positively adjusted for any height of bottle by running the capping member up or down to the desired position and then slipping the lever into the pinion shaft at the proper angle. The length and position of the lever is quickly adjusted as two holes at right angles to each other are provided in the shaft. The lever is held in the shaft by a ball spring friction.

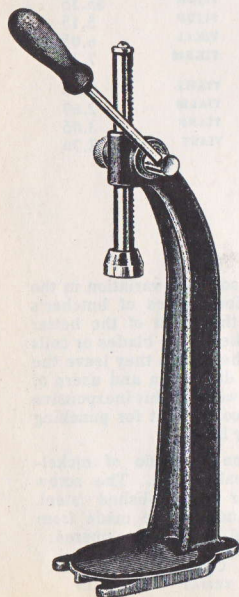
The seal cap is hardened and carefully designed to give a sure, tight seal.

The base is fitted with a corrugated rubber pad to cushion the capping pressure and prevent breakage of bottles.

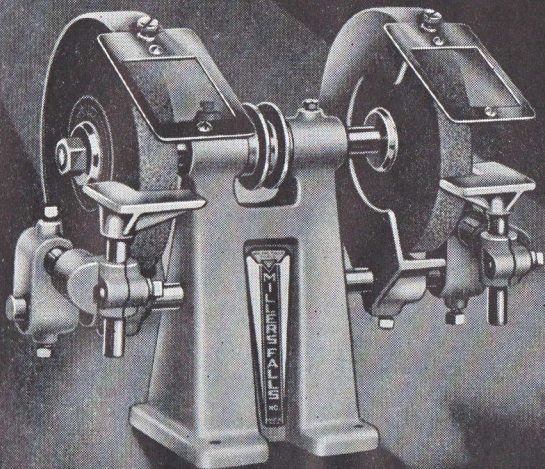
All steel parts are heavily nickel plated, and the frame is finished in bright red lacquer.

	Height Frame	Weight	Code	Price Each
No. 3	16 inches	6 lbs.	EHCOL	\$1.75

Packed one in a box.



GRINDERS



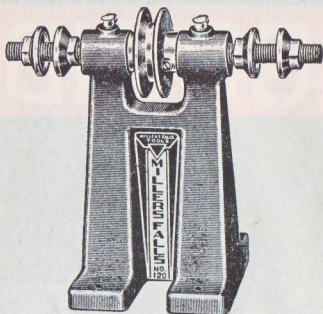
**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

No. 120 Grinding Head

"Oilite" Bronze Bearings



A stocky machine with a solid frame and ample base to withstand years of service. The spindle is $\frac{1}{2}$ inch in diameter and runs in two "Oilite" bronze bearings $1\frac{1}{4}$ inches long. Bearings are lubricated through good sized spring top oilers.

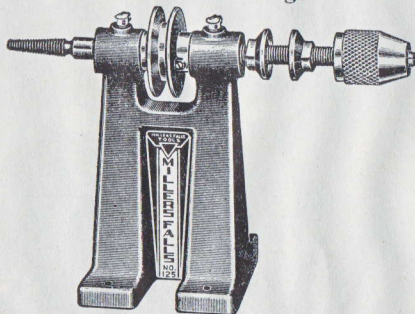
The spindle is threaded at both ends and carries two sets of hardened flanges $1\frac{1}{4}$ inches in diameter to carry wheels up to 4 inches in diameter with a $\frac{3}{4}$ -inch face and $\frac{1}{2}$ -inch hole. The V-belt pulley is $2\frac{1}{4}$ inches in diameter. Designed to drive from above, behind or below.

Frame nicely finished in battleship gray. Flanges polished, nicked and buffed.

	Height	Base	Weight	Code	Price Each
No. 120	6 inches	$4\frac{1}{8} \times 4\frac{1}{8}$ inches	$5\frac{1}{4}$ lbs.	YEBAT	\$2.75
Packed one in a box.					

No. 125 Grinding Head

"Oilite" Bronze Bearings

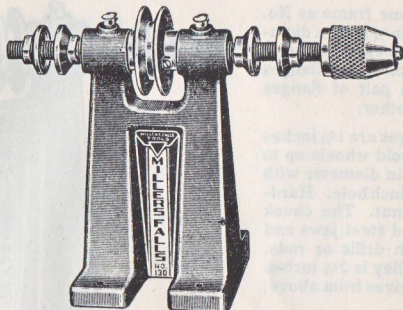


Exactly the same as No. 120 above, but fitted with a clean, deep taper thread spindle in place of the wheel arbor on the left. This permits the use of buffing wheels and a great variety of wheels built on wood centers. On the right is a set of flanges and an all-steel three-jawed chuck, that holds rods or drills from 0 to $\frac{3}{8}$ inch in diameter. Height given is to center of spindle.

	Height	Base	Weight	Code	Price Each
No. 125	6 inches	$4\frac{1}{8} \times 4\frac{1}{8}$ inches	5 lbs.	YEBVO	\$3.30
Packed one in a box.					

No. 130 Grinding Head

"Oilite" Bronze Bearings



Exactly the same as No. 120 on the preceding page, but with a longer spindle on the right side on which is a nicked and buffed all-steel chuck with three hardened jaws that holds 0 to $\frac{3}{8}$ inch round shank drills or rods.

No. 130	Height 6 inches	Base $4\frac{1}{8} \times 4\frac{1}{8}$ inches	Weight 5 $\frac{1}{2}$ lbs.	Code YEDY	Price Each \$3.50
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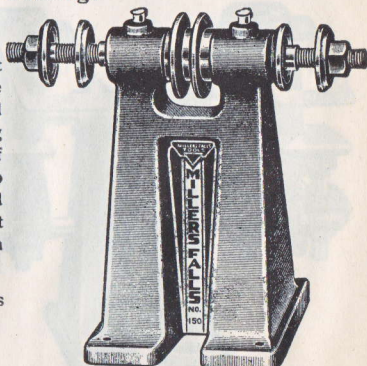
Packed one in a box.

No. 150 Grinding Head

"Oilite" Bronze Bearings

A heavier head with bigger base, greater height and $\frac{3}{4}$ -inch spindle running in two "Oilite" bronze bearings $1\frac{1}{2}$ inches long. The bearings are oiled from two large spring top oil cups on the frame casting directly above the bearings. Arbor on either end of spindle with $1\frac{3}{4}$ -inch flanges for holding wheels up to 6 inches or larger in diameter with 1-inch face and $\frac{1}{2}$ -inch hole. Flange nuts are hardened. The V-belt pulley is $2\frac{1}{4}$ inches in diameter and can be driven from above, behind or below.

Frame finished in battleship gray enamel. Flanges nickel plated and buffed.



No. 150	Height 7 $\frac{1}{2}$ inches	Base 5 x 5 inches	Weight 8 $\frac{3}{4}$ lbs.	Code YEEVO	Price Each \$5.50
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Packed one in a box.

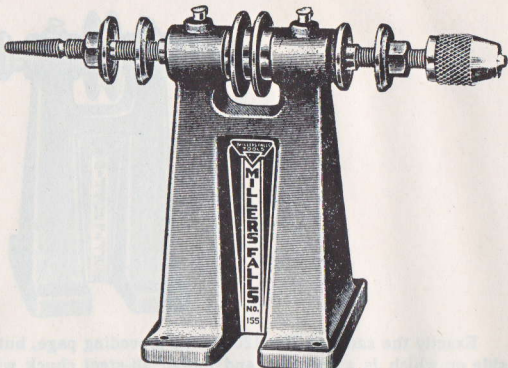
No. 155 Polishing Head

"Oilite" Bronze Bearings

Built on the same frame as No. 150. The spindle is $\frac{3}{4}$ inch in diameter and carries a deep, clean taper thread and a pair of wheel flanges on one end and a pair of flanges and chuck on the other.

The wheel flanges are $1\frac{3}{4}$ inches in diameter and hold wheels up to 6 inches or larger in diameter with 1-inch face and $\frac{1}{2}$ -inch hole. Hardened steel flange nut. The chuck has three hardened steel jaws and holds 0 to $\frac{3}{8}$ inch drills or rods. Polished V-belt pulley is $2\frac{1}{4}$ inches in diameter and drives from above, behind or below.

Frame finished in battleship gray enamel. Flanges and chuck nickel plated and buffed.

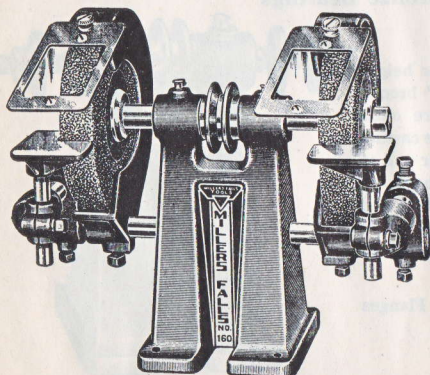


No. 155	Height 7 $\frac{1}{2}$ inches	Base 5 x 5 inches	Weight 9 lbs.	Code YEFEE	Price Each \$7.15
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Packed one in a box.

No. 160 Grinding Head

"Oilite" Bronze Bearings



This is exactly the same as No. 150, with the addition of a very substantial set of work rests adjustable in three directions, a heavy set of wheel guards and glass spark guards set in a metal frame. These spark guards can be moved aside when wheels are being changed or can be removed entirely if desired.

Accommodates wheels up to 6 inches in diameter with 1-inch face and $\frac{1}{2}$ -inch hole.

Frame finished in battleship gray and red enamel. Flanges nickel plated and buffed.

No wheels furnished.

No. 160	Height 7 $\frac{1}{2}$ inches	Base 5 x 5 inches	Weight 25 lbs.	Code YEGRE	Price Each \$11.00
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Packed one in a wooden box.

No. 170 Grinding Head

“Oilite” Bronze Bearings



A heavy head with a 1-inch spindle running in two “Oilite” bronze bearings 3 inches long. Oiled from spring top oil cups on the casting directly above the bearings. Diameter of wheel flanges, 3 1/8 inches. Hardened steel flange nuts. Handles wheels up to 8 inches in diameter with 1 1/4-inch face and 3/4-inch hole. Pulley, 2 1/4 inches in diameter with 2 1/2 inches for flat belt. Can be driven from above, below or behind.

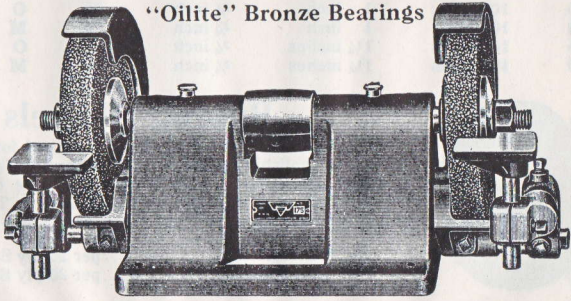
Frame finished in battleship gray enamel. Flanges nickel plated and buffed. No wheels furnished.

	Height	Base	Weight	Code	Price Each
No. 170	5 1/4 inches	8 x 11 inches	27 lbs.	YEHC0	\$14.00

Packed one in a wooden box.

No. 175 Grinding Head

“Oilite” Bronze Bearings



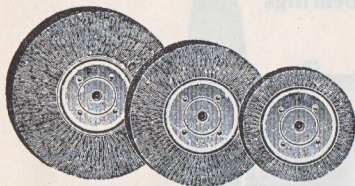
Same as No. 170, with the addition of a sturdy pair of work rests adjustable in three directions and a heavy pair of wheel guards. Guards accommodate wheels up to 7 inches in diameter with 1 1/4-inch face and 3/4-inch hole. Pulley for flat belt has 2 1/4-inch diameter and 2 1/2-inch face. Drives from below, above or behind.

Frame, guards and rests finished in battleship gray and red enamel. Flanges nickel plated and buffed. No wheels furnished.

	Height	Base	Weight	Code	Price Each
No. 175	5 1/4 inches	8 x 11 inches	45 lbs.	YE1AL	\$20.00

Packed one in a wooden box.

Wire Wheel Brushes



No. 24
No. 26
No. 28
No. 210
No. 212

Diameter
4 inches
6 inches
8 inches
10 inches
12 inches

Width
1 inch
1 1/8 inches
1 1/2 inches
2 inches
2 1/2 inches

Price Each
\$2.20
3.45
4.20
7.70
9.20

Extra arbor bushings, per set \$0.20

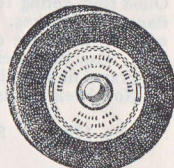
These wire wheel brushes are rigid and compactly made, having more wires per square inch of brush surface than the average wheel. Wires being tightly compressed give greater wearing strength to brush. Have interchangeable bushings which slip into the 2-inch standard size opening and adjust to fit any size spindle.

Arbor bushings can be furnished with 1/2-inch, 5/8-inch, 3/4-inch or 1-inch arbor hole.

It is important that the diameter of the arbor hole wanted be specified.

Grinding Wheels

These are the best quality wheels made in the most commonly used grains and grades. Especially adapted for use on electric drills and grinders, grinding heads, etc.



No. 1519
No. 636
No. 660
No. 1036
No. 1060
No. 2036
No. 2060

Diameter
4 inches
6 inches
6 inches
10 inches
10 inches
10 inches
10 inches

Face
1/2 inch
1/2 inch
1/2 inch
1 inch
1 inch
1 1/4 inches
1 1/4 inches

Arbor Hole
1/2 inch
1/2 inch
1/2 inch
3/4 inch
3/4 inch
3/4 inch
3/4 inch

Grain
60
36
60
36
60
36
60

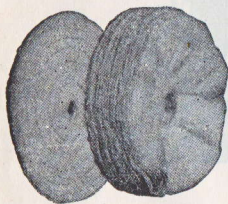
Grade
M
O
M
O
M
O
M

Price Each
\$1.15
2.20
2.20
6.60
6.60
8.25
8.25

Buffing Wheels

These buffing wheels will meet the need for light, portable buffers for polishing a number of different objects that have formerly necessitated hand work. The size of the wheel is 6 inches with a 1/2-inch hole to fit on Arbor. Two sections of twenty-ply are required to make the wheel one-half inch thick.

No. 1521 per 20-ply Section \$0.38
No. 1721 Stitched..... per 20-ply Section .38



No. 1522 Carbon Removing Brush

Very useful in removing carbon from cylinder heads, tops of pistons, valve ports, etc. Leaves fine burnished surface upon which it is hard for carbon to collect. Diameter of brush, 1 1/4 inches. Length of wire, 1 1/8 inches. Spindle, 1/4-inch diameter. Can be used in any 1/4-inch electric drill.

No. 1522 Price, \$1.45



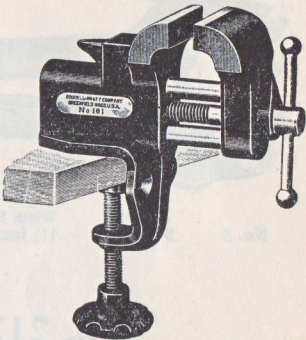
Bench Vises

1 to 2½ Inch Jaws

The twin guide rod construction of these vises was originated by Goodell-Pratt and marked a big advance in vise construction. It has since been appropriated by many other manufacturers but in no instance has the quality of these original vises been approached.

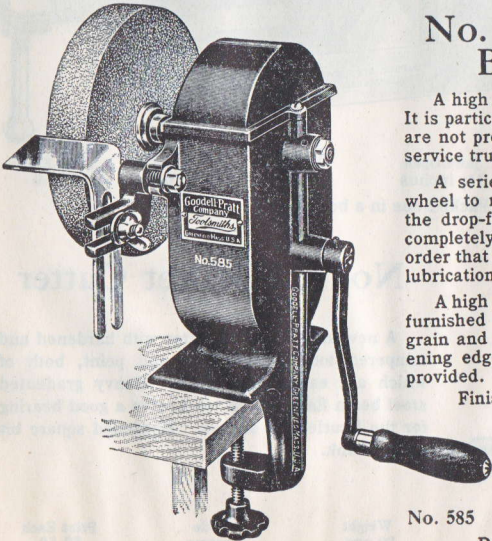
They are operated by an accurately cut-steel feed screw. Two steel guide rods are provided to insure rigidity. All parts are carefully fitted so that the jaws are easily operated, but without lost motion. After the vise is completely assembled, the jaws are machined so that they will meet accurately.

All steel parts are polished and all iron parts are finely finished in red and black enamel.



	Width Jaws	Jaws Open	Net Weight	Code	Price Each
No. 160	1 inch	1½ inches	1¾ lbs.	YEGAC	\$1.50
No. 663	1½ inches	1½ inches	2 lbs.	ZAGIT	2.00
No. 161	2 inches	2 inches	3¾ lbs.	YEGCA	2.20
No. 664	2½ inches	2½ inches	7¼ lbs.	ZAGOV	3.50

Packed one in a box.



No. 585 High Speed Bench Grinder

A high speed and high power bench grinder. It is particularly adapted for use in shops which are not provided with power, on an automobile service truck, or in a contractor's tool house.

A series of machine-cut gears causes the wheel to make 22 revolutions to each turn of the drop-forged steel crank. These gears are completely inclosed and packed in grease in order that they may run silently and have proper lubrication.

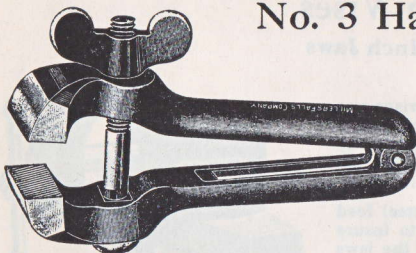
A high grade abrasive wheel, 7 x 1¼ inches, is furnished with each tool. The wheel is of a grain and grade particularly adapted for sharpening edge tools. An adjustable work rest is provided.

Finished in red and black enamel.

	Height	Code	Price Each
No. 585	9¼ inches	YUNOD	\$16.50

Packed one in a box.

No. 3 Hand Vise



Forged steel jaws and handles. Jaw faces checked to give good grip. Tightened by means of heavy steel thumb nut and screw bolt. Heavy spring opens jaws as nut is loosened.

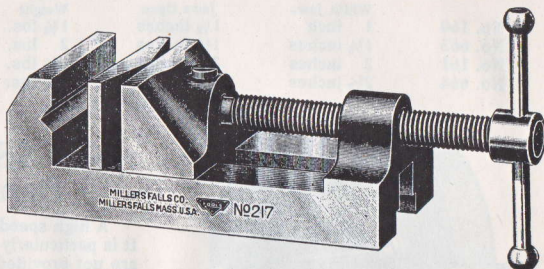
Jaws polished. Rest of tool finished in black and aluminum lacquer.

No. 3	Length 5 inches	Width Jaws 1½ inches	Jaws Open 1¼ inches	Weight 1½ lbs.	Code REAKS	Price Each \$2.20
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Packed one in a box.

No. 217 Bench Drill Vise

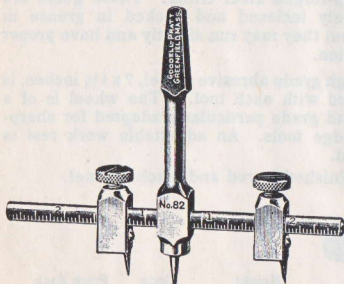
A well made, nicely finished vise for use at the bench or on a bench drill or drill press. Jaws, base, sides and bearing parts accurately machined. Removable swivel jaw. Steel screw provided for fastening securely to drill table. Capacity with swivel jaw removed, 3 inches.



No. 217	Width Jaws 2¾ inches	Jaws Open 2⅝ inches	Weight 4¾ lbs.	Code DEIGN	Price Each \$3.50
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Packed one in a box.

No. 82 Gasket Cutter



A new and improved cutter with hardened and tempered tool steel cutters and point, both of which are easily replaceable. Heavy graduated steel beam flattened on top to give a good bearing for the knurled set screws. Hardened square bit brace shank.

No. 82	Capacity ⅝ to 6 inches	Weight 10 ozs.	Code YADVT	Price Each \$2.50
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Packed one in a box.

Bearing Scrapers



We unreservedly recommend these bearing scrapers as the best made. The slightly curved, tapering, and recessed blade is designed to do nice scraping without chattering.

The blades are forged from a very high grade of tool steel correctly hardened and so carefully tempered that they will scratch glass and hold their keen razorlike edge over a long period. After being dulled by long usage they can be easily sharpened by a few strokes on an oil stone.

The polished round shanks and large polished mahogany finished handle make a most attractive tool and a comfortable one to use.

	Cutting Edge	Length Overall	Code	Price Each
No. 581	1½ inches	8 inches	YUNDO	\$0.70
No. 381	2½ inches	10 inches	YOCYP	.90
No. 382	3½ inches	11 inches	YODAK	1.00
No. 383	4½ inches	12 inches	YODEL	1.10

Packed six in a box.

	One Each	Code	Price per Set
No. 740A Set	Nos. 581-381-382	ZAVIT	\$2.60
No. 471 Set	Nos. 381-382-383	YORCO	3.00

Packed one set in a box.

No. 238 Valve Grinder

With Progressive Reciprocating Motion

An improved tool which simplifies the grinding of automobile valves. Forward turns of the crank cause grinding head to reciprocate and make one complete revolution to ten turns of the crank. This progressive reciprocating motion insures a perfect face on both the valve and valve seat resulting in tight seating and high compression.

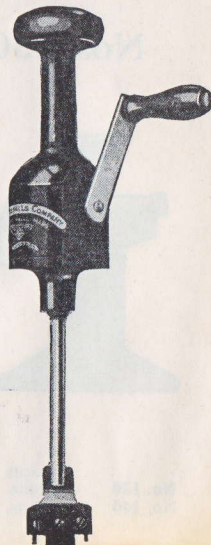
Ball bearings insure free action and increase its power.

Universal in its use as spanner points are adjustable and the flat blade is used for slotted valve heads.

Steel gears and crank handle, iron frame enameled black. Head of stained hardwood, shaped to give firm, comfortable grip.

	Height	Weight	Code	Price Each
No. 238	13¾ inches	2½ lbs.	NATAL	\$3.80

Packed one in a box.



No. 135 Double Screw Jack

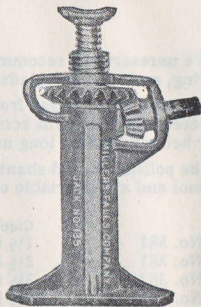
1 Ton Capacity

A sturdy, well built jack with a new low minimum height to meet the requirements of the new low slung light cars.

It is of the double lift screw type, both screws operating in unison. It is guaranteed to lift loads within its capacity quickly and easily. Dimensions of base, $4\frac{3}{4} \times 3\frac{1}{4}$ inches. Diameters of screws, $1\frac{3}{16}$ inches and $\frac{3}{4}$ inch.

Fitted with a new 42-inch steel handle of the folding, extensible type.

Note the low handle angle on both these jacks, which makes their operation far more convenient than the ordinary jack.

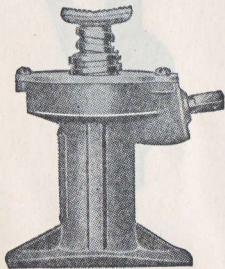


No. 135	Capacity 1 ton	Minimum Height 6 inches	Maximum Lift $5\frac{3}{4}$ inches	Weight with Handle 8 lbs.	Code YECPY	Price Each \$4.00
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Packed one in a box.

Nos. 130 and 140 Double Screw Jack

2 Ton Capacity



Designed for heavy passenger cars and light trucks.

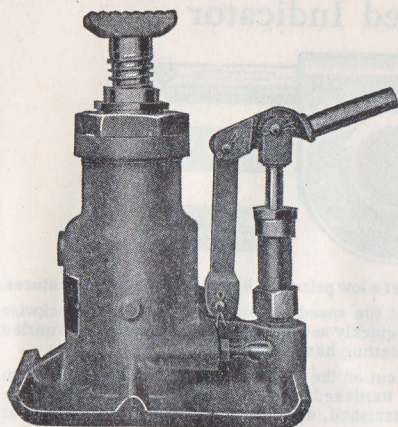
The double screws act in unison to lift the load quickly and easily. The powerful reduction gears are entirely enclosed, insuring free, smooth operation.

The starting height has been lowered to meet the requirements of new car models. Base measures, $5\frac{1}{2} \times 3\frac{1}{4}$ inches. Diameters of screws, $1\frac{1}{2}$ inches and $1\frac{1}{8}$ inches. Steel handle, 48 inches long of the telescopic extensible type.

Note the low handle angle on both these jacks, which makes their operation far more convenient than the ordinary jack.

No. 130	Capacity 2 tons	Minimum Height $7\frac{1}{4}$ inches	Maximum Lift 10 inches	Weight with Handle $10\frac{1}{2}$ lbs.	Code YECDA	Price Each \$8.00
No. 140	2 tons	6 inches	$6\frac{3}{4}$ inches	11 lbs.	YEDHO	8.00

Packed one in a box.



No. 180 Hydraulic Jack

7 Ton Capacity

Requiring almost effortless strokes this jack will lift to its capacity with ease and safety.

To lower, it is but necessary to turn the release valve by means of the handle.

The castings are of the finest while the steel ram is accurately fitted into a honed cylinder to insure satisfactory service. Valves are positive.

Equipped with hand-operated auxiliary screw, broad sled base, and extension handle.

Handle is steel, jointed, extensible to 36 inches.

Nicely finished in gray and red enamel.

Dimensions of base, 5¼ x 7½ inches.

No. 180	Capacity 7 tons	Minimum Height 9 inches	Maximum Height 18½ inches	Ram Lift 5½ inches	Screw Extension 4 inches	Weight with Handle 22 lbs.	Code YEJES	Price Each \$22.00
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No. 190 Hydraulic Jack

12 Ton Capacity

A powerful jack, designed for heavy duty and long and dependable service.

It is similar in design to the No. 180, but with heavier parts to amply care for the heavy loads to be imposed upon it.

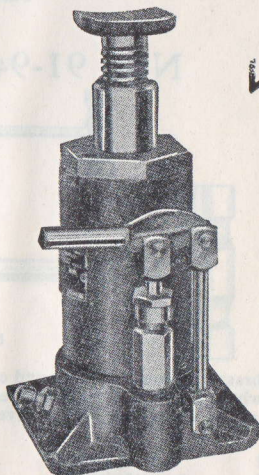
The pump is positive in its action, requiring but little effort while the release valve permits lowering of loads gently to the ground.

Equipped with hand-operated auxiliary screw.

Handle is steel, extensible to 36 inches.

Nicely finished in gray and red enamel.

Dimensions of base, 5¾ x 7¾ inches.

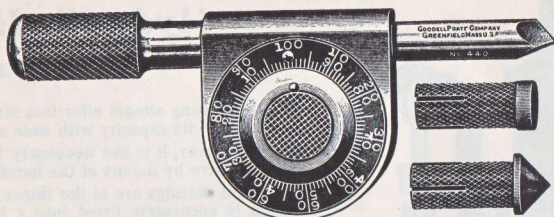


✓
NEW

No. 190	Capacity 12 tons	Minimum Height 9¾ inches	Maximum Height 21¾ inches	Ram Lift 6½ inches	Screw Extension 4 inches	Weight with Handle 33 lbs.	Code YEKPA	Price Each \$30.00
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Packed one in a box.

No. 440 Speed Indicator



A very useful, easily operated indicator selling at a low price and having many sterling features.

The fixed dial is graduated both ways so that the speed of clockwise or counter-clockwise shafts can be read directly. The rotating dial is quickly set to 0 by merely turning the knurled thumb screw to the left and tightening after the setting has been made.

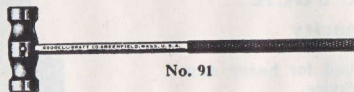
The mechanism consists of a burnished worm cut on the steel spindle which drives the worm gear operating the recording dial. The spindle is hardened and the contact pressure is taken up on a ball thrust bearing. Two rubber tips are furnished, one for centered and one for plain or pointed shafts.

Entire tool finely polished, nickel plated and buffed.

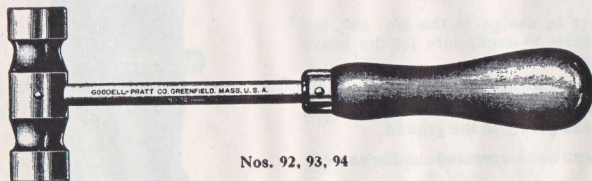
	Length	Weight	Code	Price Each
No. 440	4 1/4 inches	6 OZS.	YOMOB	\$1.25

Packed one in a box.

Nos. 91-94 Brass Hammers



No. 91



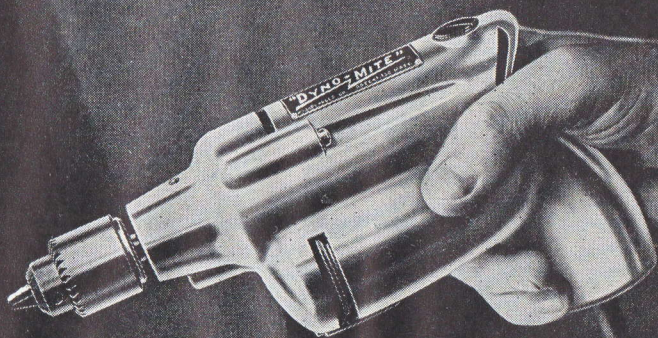
Nos. 92, 93, 94

These brass hammers will be found convenient and practical for use on finished work, or in any place where a soft hammer is desired. The brass heads and steel shanks are both nicely polished, and the three largest sizes have hardwood handles with a mahogany lacquer finish.

	Head	Length	Weight	Code	Price Each
No. 91	1/2 x 1 1/2 inches	5 1/2 inches	2 OZS.	YAURN	\$1.00
No. 92	5/16 x 1 3/4 inches	7 1/4 inches	4 OZS.	YAULT	1.10
No. 93	3/4 x 2 1/4 inches	8 inches	8 OZS.	YAVEN	1.30
No. 94	1 x 3 inches	10 inches	16 OZS.	YAVMA	1.50

Packed one in a box.

ELECTRIC TOOLS



**GOODELL
PRATT**
1500 GOOD TOOLS

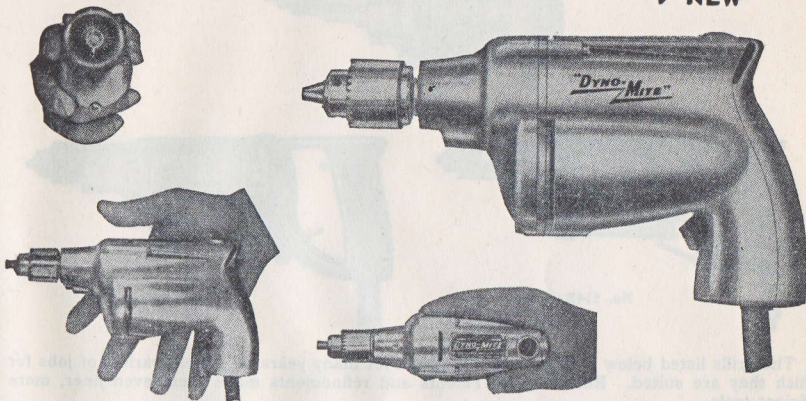
**MILLERS FALLS
TOOLS**
SINCE
1868

IMPORTANT

The Millers Falls
Electric Tool Line
is sold through ex-
clusive distributors
only. Full particulars
of our electric tool
sales policy will be
furnished on request

New "DYNO-MITE" Drills

✓
NEW



U. S. Patents Nos. 2024276, 2045218 and 2045219. Others applied for

Dyno-Mite Drills are the world's finest and smallest production drills. Beautiful streamlined form, coupled with unusual simplicity of construction, and surprising power, make them outstanding in electric tool design and engineering.

Production drills in every sense, they operate in steel at speeds to tax the staying powers of any operator. Their small size and extremely light weight give perfect one-hand control even in very close quarters.

The die-cast aluminum frames house the powerful motor with its ball bearing armature. Chrome nickel, helical gears transmit the power to the chuck quietly and efficiently. Copious ventilation keeps the drill cool. Perfect switch control.

Every constructional detail has been so simplified and refined that any Dyno-Mite Drill can be taken down and reassembled in a few minutes.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220 and 250.

CHUCKS: Jacobs key-operated. **GEARS:** Heat-treated chrome nickel steel.

BEARINGS: Ball bearing armatures and spindles.

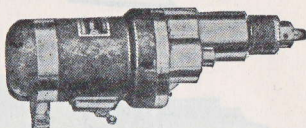
BRUSHES: Extra long Pigtail—accessible from outside.

SWITCH: Patented quick make and break.

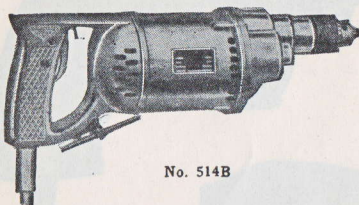
CORD and PLUG: 10 feet of best rubber-covered three-wire, with unbreakable rubber plug.

	Capacity in Steel	N. L. Speed R. P. M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 450	3/16"	3500	1.8	7 1/2"	2 5/8	DIART
No. 450	3/16"	5000	1.8	7 1/2"	2 5/8	DIASO
No. 400	1/4"	1600	1.8	8"	2 1/2	DIMIN
No. 425	1/4"	2500	1.8	7 1/2"	2 5/8	DIAPB
No. 500	5/16"	800	1.8	8 1/4"	2 3/4	DIABZ

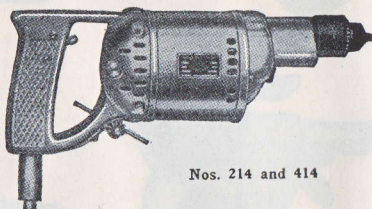
3/16 and 1/4 Inch Electric Drills



No. 316



No. 514B



Nos. 214 and 414

The drills listed below have proved their merit for many years on a great variety of jobs for which they are suited. Recent improvements and refinements make them even finer, more efficient tools.

No. 316—3/16" STANDARD BALL BEARING DRILL. Where there are large numbers of small holes to be drilled it will return its cost in short time. Its compactness and light weight make it extremely useful in cramped quarters. It is regularly supplied with a No. 96 Aluminum End Handle. A No. 98 Pistol Grip Handle will be supplied as optional equipment if so specified.

No. 214—1/4" LIGHT DUTY DRILL powered for general use of intermittent character. Nicely suited to special applications, small shops and the craftsman's workshop. A more powerful drill should be specified on heavier work.

No. 414—1/4" STANDARD BALL BEARING DRILL is undoubtedly the most popular 1/4" Drill ever produced for general all-round use. Plenty of power, fine balance and excellent performance make it the outstanding drill in its class.

No. 514B—1/4" HEAVY DUTY BALL BEARING DRILL can be depended on for efficient performance on all classes of severe production work within its rated capacity. It is recommended for driving the Right Angle Attachment and accessories shown later.

MOTORS: Universal for D. C. or A. C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CHUCKS: Jacobs key-operated. Keyless type optional on Nos. 414 and 514B at extra cost.

GEARS: Heat-treated chrome nickel steel. **BRUSHES:** Pigtail—accessible from outside.

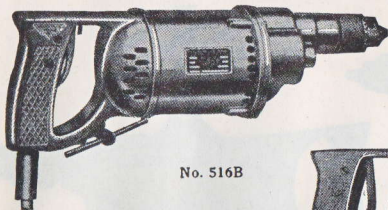
SWITCHES: No. 316—Single pole fully enclosed. Others—Double pole, fully enclosed. Underwriter approved. Convenient lock for continuous operation.

CORD and PLUG: 12 feet of best rubber-covered three-wire, with unbreakable rubber plug.

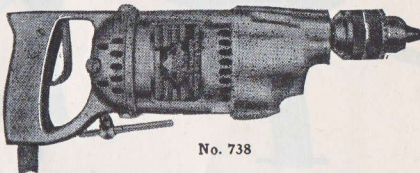
	Capacity in Steel	Standard N. L. Speed R. P. M.	Special N. L. Speed R. P. M.	Amps. Full Load	Length Overall	Weight Pounds	Code Word
No. 316	3/16" Std.	3000	750-1200 2000	1.2	9 3/8"	3 1/8	DAMON
No. 214	1/4" L.D.	1800	3000	2.0	12"	5	DIXIE
No. 414	1/4" Std.	1800	3000	2.5	12"	5 1/2	DIANA
No. 514B	1/4" H.D.	2000	1000-1500 3000	3.0	14"	7 1/2	DRAWL

Special Speeds at Slight Additional Cost

5/16 and 3/8 Inch Electric Drills



No. 516B



No. 738


NEW

Two new Slow Speed Drills are listed herewith. They have been developed especially for easy, efficient drilling of stainless, high carbon and case-hardened steels, marble and other applications where slow spindle speed is necessary to prevent burning of drills and lost production.

No. 516B—5/16" HEAVY DUTY BALL BEARING DRILL is powerfully motored for continuous operation at its full rated capacity. Beautifully engineered throughout. An ideal tool for sheet metal, structural and body shops.

No. 716—5/16" SLOW SPEED BALL BEARING DRILL has a full load spindle speed of only 250 R.P.M. and the same powerful motor as No. 516B, making it an ideal tool for the toughest drilling jobs in hard steel and other severe work.

No. 638B—3/8" SPECIAL BALL BEARING DRILL is a light weight but powerful and efficient drill of the pistol grip type. It is designed for general use in intermittent service up to its rated capacity. Of particular value where ease of handling is an important factor.

No. 738—3/8" SLOW SPEED BALL BEARING DRILL with the low full load spindle speed of 250 R.P.M. and a powerful motor gives wonderful performance on any job within its capacity, including stainless steel, marble, etc.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.
CHUCKS: Jacobs key-operated. Keyless type optional on No. 516B at slight additional cost.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

BEARINGS: Full ball bearing armatures and spindles. **BRUSHES:** Pigtail—accessible from outside.

SWITCHES: Double pole, fully enclosed. Underwriter approved.

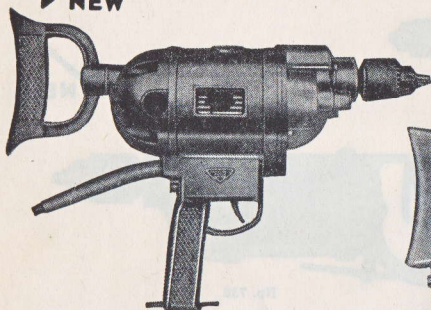
CORD and PLUG: 12 feet of best rubber-covered three-wire, with unbreakable rubber plug.

	Capacity in Steel	Standard N. L. Speed R.P.M.	Special N. L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 516B	5/16" H.D.	1500	2000	3.0	14"	7¾	DROVE
No. 716	5/16" S.S.	400	None	3.0	14"	8¾	DAGIT
No. 638B	3/8" Spl.	1000	1500	3.0	14"	8½	DINOX
No. 738	3/8" S.S.	400	None	3.0	14"	8¾	DAHOL

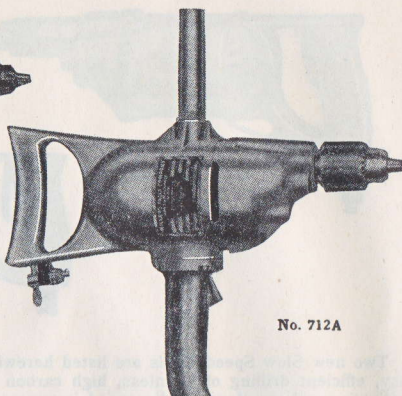
Special Speeds at Slight Additional Cost



$\frac{3}{8}$ and $\frac{1}{2}$ Inch Electric Drills

✓
NEW

No. 538A



No. 712A

No. 538A— $\frac{3}{8}$ " HEAVY DUTY STANDARD BALL BEARING DRILL is a sturdy, powerful drill built on a larger frame with a comfortable combination end handle and breast plate. Light in weight and easily controlled. A fine performer on hundreds of continuous production jobs.

No. 712A— $\frac{1}{2}$ " UTILITY DRILL of compact, streamlined design dominates its price class and establishes a new standard of value. An extremely easy drill to handle due to its light weight, compactness and balance. Its performance on general run $\frac{1}{2}$ -inch jobs of intermittent character is excellent. Dependable, long lived and surprisingly free from servicing requirements. "Oilite" patented self-lubricating armature bearings. Ball bearing spindle.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CHUCKS: Jacobs key-operated. **GEARS and SPINDLES:** Heat-treated chrome nickel steel.

BEARINGS: No. 538A ball bearing armature; bronze and ball thrust spindle bearings.

No. 712A "Oilite" armature bearing, ball bearing spindle and thrust.

BRUSHES: Pigtail—accessible from outside.

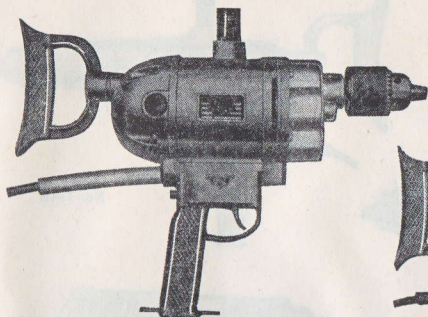
SWITCHES: Double pole, fully enclosed, self-releasing. Underwriter approved.

CORD and PLUG: No. 538A—15 feet and No. 712A—10 feet, of rubber-covered three-wire, with unbreakable rubber plug.

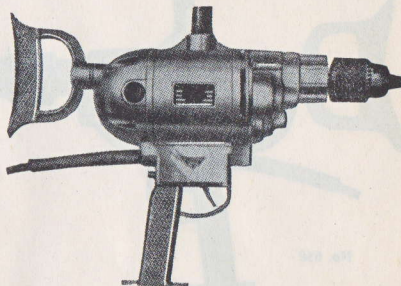
	Capacity in Steel	Standard N. L. Speed R. P. M.	Special N. L. Speed R. P. M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 538A	$\frac{3}{8}$ " H.D.	1000	650	5.0	18"	13 $\frac{3}{4}$	DINNY
No. 712A	$\frac{1}{2}$ " Util.	400	None	3.4	14 $\frac{1}{2}$ "	10 $\frac{1}{2}$	DYNET

Special Speeds at Slight Additional Cost

1/2 - Inch Electric Drills



No. 312A



No. 312B

These three fine 1/2-inch capacity drills cover every conceivable requirement from intermittent general purpose service to the severest continuous heavy duty operation. Ample power and refinement of every constructional detail insure unusual performance and long life.

No. 312A—1/2" **SPECIAL BALL BEARING DRILL** is very easily handled due to its light weight and excellent balance. Powered for general purpose intermittent service, making it particularly well suited to maintenance and repair work.

No. 312B—1/2" **STANDARD BALL BEARING DRILL** has everything that a super-drill of this capacity should have: power, beautiful balance, light weight, speed and durability. Full ball bearing spindle.

No. 612A—1/2" **HEAVY DUTY BALL BEARING DRILL**. A ruggedly built, heavily powered drill designed throughout for continuous service on severe 1/2-inch drilling or work of equally heavy duty character. A long-lived production tool remarkably free from servicing requirements.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CHUCKS: Jacobs key-operated. **BEARINGS:** Ball bearing armatures.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

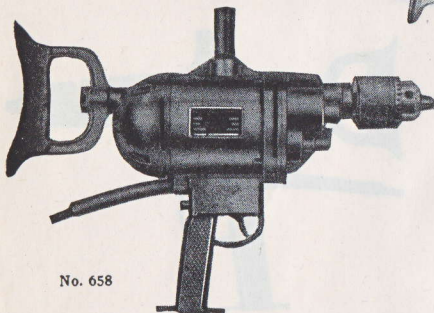
SWITCHES: Double pole, fully enclosed. **BRUSHES:** Pigtail—accessible from outside.

CORD and PLUG: 15 feet of best rubber-covered Type S three-wire, with rubber or armored plug.

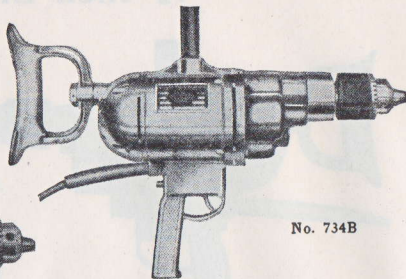
	Capacity in Steel	Standard N.L. Speed R.P.M.	Special N.L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 312A	1/2" Spl.	525	None	4.5	17"	14	DIRCK
No. 312B	1/2" Std.	525	1000 1500	4.5	18 3/4"	15	DIRCK
No. 612A	1/2" H.D.	650	1000	5.0	20"	15	DIFFY

Special Speeds at Slight Additional Cost

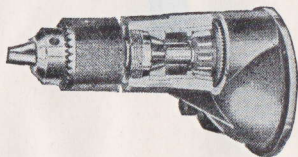
5/8 and 3/4 Inch Electric Drills



No. 658



No. 734B



These larger capacity drills are ruggedly built for continuous service. They are heavily powered and every part is designed for the loads they must carry or transmit. The many hours of satisfactory performance built into these drills more than justify their cost.

No. 658—5/8" HEAVY DUTY BALL BEARING DRILL. A heavy duty tool in every sense of the word. Recommended for the toughest kinds of continuous work within its rated capacity, such as operating pipe threading machines and work of similar character.

No. 634—3/4" STANDARD BALL BEARING DRILL is a comparatively short tool and light in weight for its capacity. It is powered to cover a wide range of general purpose work of ordinary character.

No. 734B—3/4" EXTRA HEAVY DUTY BALL BEARING DRILL is designed and powered for the very heaviest types of 3/4-inch service and work of equal severity. It is recommended for such grueling jobs as driving positive set cylinder grinders and hones. The spindle is equipped with double Timken Tapered Roller Bearings.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CHUCKS: Jacobs key-operated. **BEARINGS:** Ball bearing armatures.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

SWITCHES: H.D. double pole, fully enclosed. Underwriter approved.

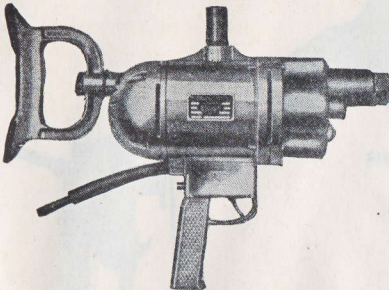
BRUSHES: Pigtail—mounted on rocker ring.

CORD and PLUG: 15 feet of best rubber-covered Type S three-wire, with armored plug.

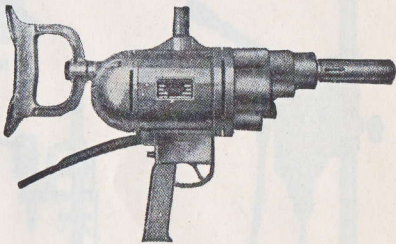
	Capacity in Steel	Standard N.L. Speed R.P.M.	Special N.L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 658	5/8" H.D.	475	700	6.5	19 1/4"	20 3/4	DOTTY
No. 634	3/4" Std.	475	700	6.5	19 3/4"	21	DORRY
No. 734B	3/4" H.D.	400	275	7.5	21 3/4"	24 3/4	DANDY

Special Speeds at Slight Additional Cost

7/8 and 1 Inch Electric Drills



No. 678



No. 801

The large capacity of these drills requires the heavier construction and greater power that characterizes them. The spindle speeds are low, suiting them to heavy continuous loads. They are both equipped with Morse Taper sockets instead of chucks.

No. 678—7/8" HEAVY DUTY BALL BEARING DRILL is suited for continuous heavy duty work. It is equipped with a No. 2 Morse Taper Socket but can be made to handle straight shank drills up to 3/4 inch by using the No. 1034 Chuck shown further on in this catalog.

No. 801—1" STANDARD BALL BEARING DRILL. Designed and powered for continuous drilling up to and including 1 inch in steel or equivalent loads. The spindle is equipped with Timken Taper Roller Bearings and is supplied with a No. 3 Morse Taper Socket in place of a chuck.

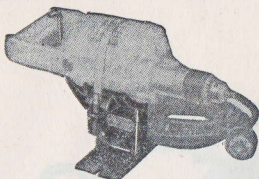
- MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. VOLTAGES: 110, 150, 220, 250.
- SOCKETS: No. 678—No. 2 M.T. No. 801—No. 3 M.T.
- BEARINGS: Ball bearing armatures. No. 801—Roller bearing spindle.
- GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.
- BRUSHES: Pigtail, mounted on adjustable rocker ring.
- SWITCHES: H.D. double pole, fully enclosed. Underwriter approved.
- CORD and PLUG: 15 feet of best rubber-covered Type S three-wire. Armored plug with strain relief clamp.

	Capacity in Steel	Standard N.L. Speed R.P.M.	Special N.L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 678	7/8" H.D.	375	None	7.5	18 3/4"	21 1/4	DRITT
No. 801	1" Std.	275	400	7.5	23 1/4"	23 3/8	DROXO

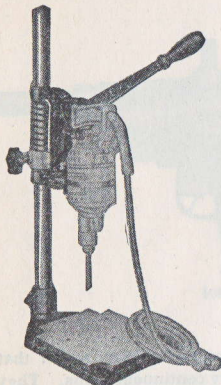
Special Speed at Slight Additional Cost



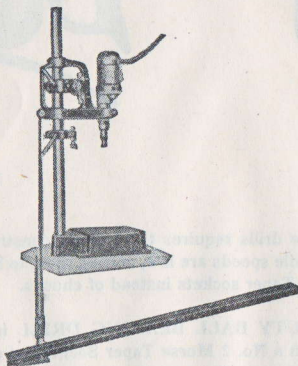
Drill and Screw Driver Stands



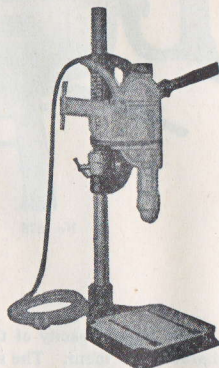
No. 1014



No. 1514



No. 3160



No. 1238

Millers Falls Portable Drills and Screw Drivers can be converted to efficient bench units by using these stands. They are made to accommodate all drills and screw drivers. Dyno-Mite Drills can be used in No. 3160 by using Adapter No. 1533.

The tool is held rigidly in position in the adjustable bracket, which is adjustable as to height. The long lever equipped with spring return provides ample drilling pressure or follow through for screw driving or nut running.

Special designs for production applications are available on consultation with our motion engineers.

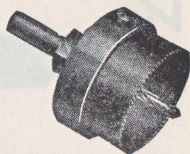
	Accommodates	Chuck to Table	Height Overall	Base Inches	Weight Pounds	Code
No. 1014	214, 414, 514B, 516B, 638B, 716, 738, 1, 2, 11, 22	5 $\frac{3}{8}$ "	4"	5 x 2 $\frac{3}{8}$ "	2 $\frac{1}{2}$	DUCKB
No. 1514	214, 414, 514B, 516B, 638B, 1, 2, 11, 22	13 $\frac{1}{4}$ "	28"	9 x 8"	37	DIACK
No. 1238	538 to 801 except 712A	16"	36"	10 x 10"	77	DIWAC
No. 1240	712A	18"	36"	10 x 10"	77	DYNOX
No. 3160	O, O1, OB, OC, 33, 44	16 $\frac{1}{2}$ "	27 $\frac{7}{8}$ "	11 $\frac{1}{4}$ x 6 $\frac{1}{4}$ "	29	DIAGO
No. 1511	Wall Brackets fitting 1514 and 1238					DAMEZ
No. 1533	Adapter for using Nos. 33 and 44 Screw Drivers in No. 3160					DAMIL

See page 182 for Limit Switches for These Stands, page 188 for Vise.

Electric Drill Accessories

High Speed Steel Hole Saws

The capacity of any drill with $\frac{1}{2}$ inch or greater capacity can be increased to from $\frac{3}{4}$ to $5\frac{1}{2}$ inches by the use of these saws. They cut clean, round holes in iron, steel, wood and other materials and have innumerable applications in the automotive, plumbing, steam fitting, millwrighting and electrical fields. For complete list of sizes and specifications, see page 142.



Jacobs Drill Chucks

These are standard Jacobs key-operated chucks with Morse Taper Shanks that permit the use of straight round shanks in drills with M.T. Sockets instead of chucks.



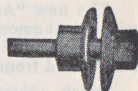
1034

No. 1034 No. 2 M.T. for No. 678. No. 3 M.T. for No. 801.
Chuck capacities— $\frac{1}{2}$, $\frac{5}{8}$ or $\frac{3}{4}$ inch.

Arbors

For operating grinding, wire brush and buffing wheels with $\frac{1}{2}$ -inch holes. The round shanks are held in the chucks of the drills as below. Wheels will be found on page 160.

No. 1518 Fitting drills with $\frac{1}{4}$ -inch chucks.
No. 1523 Fitting drills with $\frac{1}{2}$ -inch chucks.

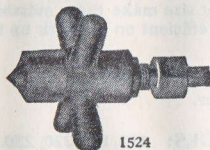


Nos. 1518 and 1523

No. 1524 Feed Screw

A powerful, steady feed at high pressure for heavy work can be secured by interchanging this device for the end handle on large size drills. Designed for use in an "Old Man" or similar fixture.

No. 1524 Fitting all drills from No. 538A to No. 801.

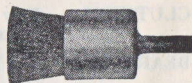


1524

No. 1521 Carbon Cleaning Brush

Removes carbon rapidly and thoroughly from automobile cylinders and pistons, removes rust and performs many metal cleaning jobs efficiently. Shank fits any $\frac{1}{4}$ -inch chuck.

No. 1521 Fitting all drills from No. 214 to No. 801.

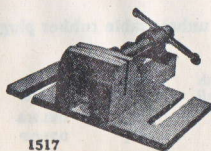


1521

No. 1517 Vise for Drill Stands

For holding work firmly on drill stands Nos. 1514, 3160 and 1238. It is equipped with a swivel jaw, for holding irregular shapes, which can be removed at will. Jaws are $2\frac{3}{8}$ inches wide and open $2\frac{3}{8}$ inches with swivel jaw in place or 3 inches without it.

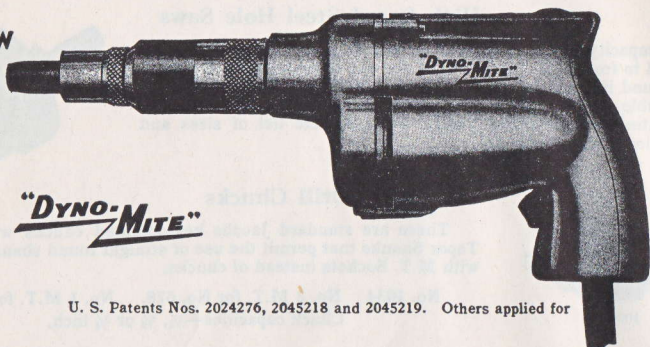
No. 1517 For Nos. 1514, 3160 and 1238 Stands Code D175



1517

Electric Screw Drivers and Nut Runners

✓
NEW



U. S. Patents Nos. 2024276, 2045218 and 2045219. Others applied for

Dyno-Mite Screw Drivers and Nut Runners embody the greatest improvements in these tools since Millers Falls first introduced adjustable clutches.

The new "Adjustomatic" clutch operates on an ingenious principle, transmitting the power with velvet smoothness and almost total absence of vibration. The desired torque can be secured by turning the indexed adjusting collar to the proper point. These adjustments are made instantly and from the outside of the tool.

Quick adjustability and extreme flexibility of this mechanism, together with the lack of vibration, give greater load capacity, higher efficiency and greatly lengthened clutch and tool life.

The power unit is the same compact, powerful assembly used in Dyno-Mite Drills. The sensitiveness attained in these new tools, their light weight and midget size make them suitable for the most delicate applications. Their power makes them equally efficient on all work up to their full rated capacity.

Regular equipment consists of one each No. 8 and No. 10 Bit with centering sleeve.

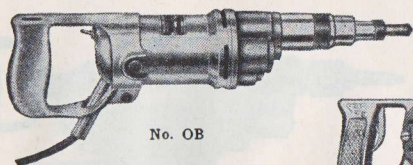
Both can be used in the No. 3160 Stand by using a No. 1533 Adapter.

- MOTORS:** Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.
- CAPACITIES:** Wood screws in hardwood with proper lead hole: No. 33 up to No. 12—1¼ inch; No. 44 up to No. 14—1½ inch. Machine screws up to ⅝ inch. Bolts up to ¾ inch.
- CLUTCHES:** New "Adjustomatic" selective torque. **GEARS:** Heat-treated chrome nickel steel.
- BEARINGS:** Ball bearing armatures and spindles.
- BRUSHES:** Extra long Pigtail—accessible from outside. **SWITCHES:** Patented quick make and break.
- CORD and PLUG:** 10 feet of best rubber-covered three-wire, with unbreakable rubber plug.

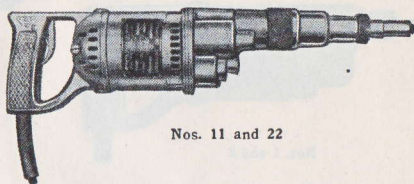
	Capacity	Standard	Special	Amps.	Length	Weight	Code
	Wood Screws	N.L. Speed	N.L. Speed	Full Load	Overall	Pounds	
		R.P.M.	R.P.M.				
No. 33	No. 12—1¼"	1600	2500	1.8	9¾"	3½	DELMA
No. 44	No. 14—1½"	800	500	1.8	10"	3½	DELOP

No Extra Charge for Special Speeds

Electric Screw Drivers and Nut Runners



No. OB



Nos. 11 and 22

Thousands of these fine tools are in operation on assembly lines earning large returns by speeding up operations and cutting costs. The clutch has an adjustable feature that allows close regulation of the driving torque and the action is extremely smooth.

No. OB—BALL BEARING SCREW DRIVER has a capacity up to No. 10—1½-inch Wood Screws in hardwood with proper lead hole, No. 12 Machine Screws and ¾-inch bolts. Regularly equipped with six bits and three centering sleeves for Nos. 4, 6 and 8 Machine Screws.

No. 11—BALL BEARING SCREW DRIVER has a capacity up to No. 16—2-inch Wood Screws in hardwood with proper lead hole, ¾-inch Machine Screws and 5/16-inch bolts. Two bits and centering sleeves for Nos. 8 and 12 Screws, regular equipment. Light, medium or heavy clutch springs can be supplied.

No. 22—BALL BEARING SCREW DRIVER has a capacity up to No. 20—2½-inch Wood Screws with proper lead hole, ¾-inch Machine Screws and ¾-inch bolts. Regularly equipped with two bits and centering sleeves for Nos. 12 and 16 Screws.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CLUTCHES: Adjustable, double acting.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

BEARINGS: Ball bearing armatures. No. OB ball bearing spindle, Nos. 11 and 22 bronze.

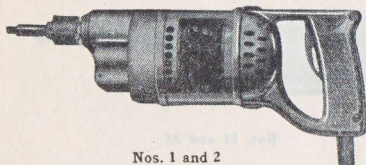
BRUSHES: Pigtail—accessible from outside. **SWITCHES:** Nos. 11 and 22 double pole, fully enclosed.

CORD and PLUG: 12 feet on OB and 15 feet on Nos. 11 and 22 best rubber-covered three-wire, with unbreakable rubber plugs.

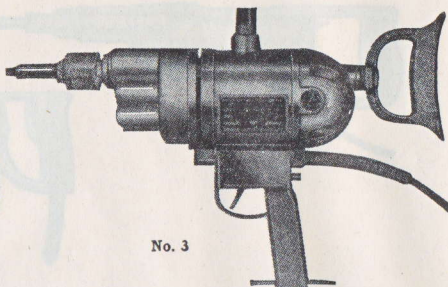
	Capacity Wood Screws	Standard N.L. Speed R.P.M.	Special N.L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. OB	No. 10—1½"	800	1200 2000 3000	1.2	14½"	3¾	DELOX
No. 11	No. 16—2"	500	700 1000	2.5	16½"	7½	DELLA
No. 22	No. 20—2½"	500	700 1000	3.5	18½"	9¼	DELIB

Reversing Switches Can Be Supplied. No Extra Charge for Special Speeds.

Electric Screw Drivers and Nut Runners



Nos. 1 and 2



No. 3

Sturdy, efficient tools for fast driving of screws, lag screws, nuts and studs and many special applications. They are equipped with positive clutches that engage when pressure is applied and disengage when it is relieved.

No. 1—BALL BEARING SCREW DRIVER has a capacity to drive No. 12—2-inch Wood Screws with proper lead hole, $\frac{5}{16}$ -inch Machine Screws and $\frac{1}{4}$ -inch bolts. Equipped with bits and centering sleeves for Nos. 8 and 12 Screws.

No. 2—BALL BEARING SCREW DRIVER has a capacity to drive No. 16—3 $\frac{1}{4}$ -inch Wood Screws with proper lead hole and $\frac{5}{16}$ -inch bolts. Equipped with bits and centering sleeves for Nos. 12 and 16 Screws.

No. 3—BALL BEARING SCREW DRIVER has a capacity to drive No. 20—4-inch Wood Screws with proper lead hole and $\frac{1}{2}$ -inch bolts. Equipped with one bit and centering sleeve for screws and one $\frac{7}{8}$ -inch hex. socket.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CLUTCHES: Positive. **BEARINGS:** Ball bearing armatures.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

BRUSHES: Pigtail—accessible from outside.

SWITCHES: Double pole, fully enclosed.

CORD and PLUG: 15 feet best rubber-covered three-wire, with unbreakable rubber plug.

	Capacity Wood Screws	Standard N. L. Speed R.P.M.	Special N. L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 1	No. 12—2"	500	700 1000	2.5	12 $\frac{1}{4}$ "	6	DELVE
No. 2	No. 16—3 $\frac{1}{4}$ "	500	700 1000	3.5	14"	8 $\frac{1}{4}$	DELVO
No. 3	No. 20—4"	500	700 1000	4.5	14 $\frac{3}{4}$ "	14	DELAY

Reversing Switches Can Be Supplied. No Extra Charge for Special Speeds.

Accessories for Electric Screw Drivers

For Nos. O, O1, OB, OC, 33 and 44

Standard 3/4-inch Screw Driver Bits

Without Sleeve		With Sleeve	
No.	Wood Screw Size	No.	Wood Screw Size
No. 41	4	No. 41S	4
No. 61	6	No. 61S	6
No. 81	8	No. 81S	8
No. 101	10	No. 101S	10

Extra Length Screw Driver Bits

The above sizes of bits can also be furnished in 2 1/2 and 4 inch lengths with or without sleeves.

Bits for Phillips Patent Screws

For Screw Drivers	Lengths	Phillips Nos.	Screw Sizes
Nos. O, O1, OB, OC, 33, 44	7/8, 2, 4 inches	1 or 2	4 to 9
Nos. 1, 2, 3, 11, 22, 44	2 1/2, 4 inches	2 or 3	5 to 16

Socket Wrenches

No.	Across Flats	Mach. Screw Size	Stove Bolt Size	No.	Across Flats	Mach. Screw Size	Stove Bolt Size
No. 08	1/4"	4		No. 80	1/4"	4	
No. 010	5/16"	6	1/8"	No. 100	5/16"	6	1/8"
No. 011	11/32"	8	5/32"	No. 110	11/32"	8	5/32"
No. 012	3/8"	10	3/16"	No. 120	3/8"	10	3/16"

Supplied in three lengths of shank

For Nos. 11, 22, 1, 2 and 3

Standard 2 1/2-inch Screw Driver Bits

Without Sleeve			With Sleeve		
Wood Screw Size			Wood Screw Size		
Flat Head	Round Head		Flat Head	Round Head	
No. 6	6-7	8-9	No. 6S	6-7	8-9
No. 8	8-9	10-11	No. 8S	8-9	10-11
No. 10	10-11	12	No. 10S	10-11	12
No. 12	12	14	No. 12S	12	14
No. 14	14	16	No. 14S	14	16
No. 16	16	18	No. 16S	16	18
No. 18	18	20	No. 18S	18	20
No. 20	20		No. 20S	20	

Special Length Screw Driver Bits

The above sizes can also be supplied in special 1, 4, 6 and 8 inch lengths, with or without sleeves.

Bit Extensions

For extra long lengths the following extensions are available:

No. 110—10 inches No. 112—12 inches No. 114—14 inches

No. 116—16 inches No. 118—18 inches

Socket Wrenches

Hexagonal and Square

Hex. No.	Square No.	Across Flats	Bolt Size	Hex. No.	Square No.	Across Flats	Bolt Size
7512	07512	3/8"	3/16"	7824	07824	3/4"	
7514	07514	7/16"		7825	07825	25/32"	7/16"
7516	07516	1/2"	1/4"	7826	07826	13/16"	
7518	07518	9/16"		7828	07828	7/8"	1/2"
7519	07519	19/32"	5/16"	7830	07830	15/16"	
7520	07520	5/8"		7832	07832	1"	
7822	07822	11/16"	3/8"				

Supplied in 2, 4 and 6 inch lengths of shank

When ordering be sure to specify screw driver type and size required

No. 988 Switch Control

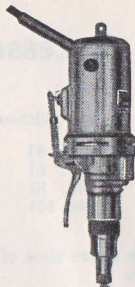
NEW For Screw Drivers Nos. O, O1, OB and OC

On production applications, when the screw driver is suspended over the bench by means of a spring or counterbalance, this device is a great time and current saver as it permits one hand manipulation. Power is automatically turned on when driver is grasped to pull down to the work and shut off when released. It is recommended that this control be installed at our factory.

No. 988 For use on Nos. O, O1, OB and OC

Code

DAFFO



Automatic Limit Switches

Compact, double pole, fully enclosed switches in a safety metal box which clamp on to the stand column, actuated by a roller tripper attached to the feed frame. Power is automatically turned on as the drill or screw driver is started down to the work and off as it returns to the top position for the next operation. Fully adjustable with the stand. Greatly prolongs life of power units by reducing wear and tear.

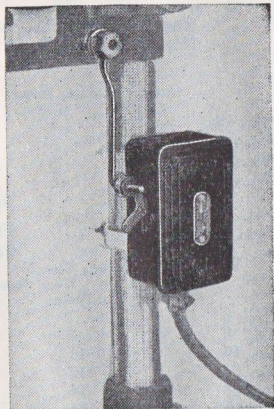
No. 1088 For use on No. 3160 Stand

Code

DAGIT

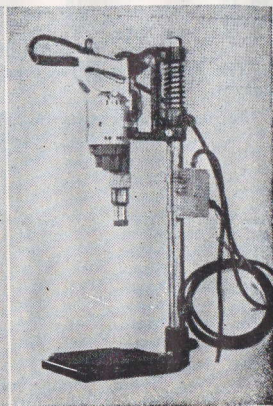
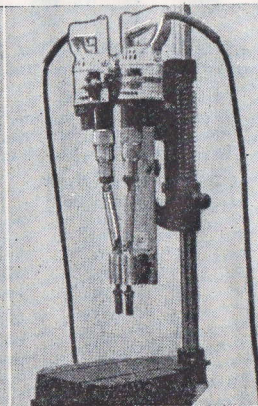
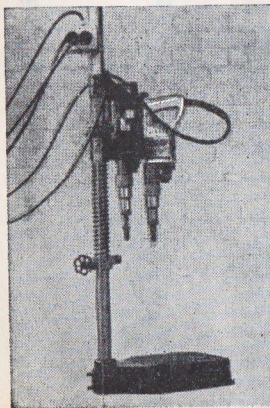
No. 1188 For use on No. 1514 Stand

DALUX



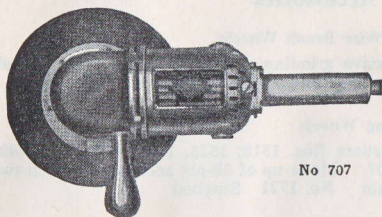
Special Fixtures

The applications for electric drills, screw drivers and nut runners on assembly operations are so numerous and widely diversified that in many instances special stands and equipment are required to effect the greatest saving in time and cost per operation. The Millers Falls engineering staff will be glad to co-operate fully in developing such special equipment, after a survey by our motion engineer has established without a doubt that the expenditure is justified by the economies to be expected.

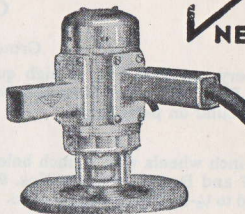


Portable Electric Sanders

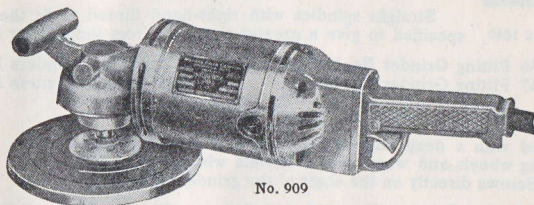
✓ NEW



No. 707



No. 809B



No. 909

The number of profitable uses to which these tools are being put is almost unlimited. **Production sanding**, metal finishing, rubbing, paint and rust removal, stone surfacing, surface grinding, wire brush operations and many special applications are efficiently handled.

No. 707—7" STANDARD BALL BEARING SANDER has proven its reliability and efficiency on light production sanding, metal finishing, grinding and cleaning. The exclusive **shock-absorbing spindle drive** gives smooth, vibrationless operation. Regular equipment includes 6 coarse, 4 medium and 2 fine abrasive discs, pad nut and pad wrench. Reversible side handle.

No. 809B—9" BALL BEARING SANDER, an excellent machine for fast finishing of wood, metal and other surfaces. Can also be used for grinding and wire brushing by using arbor **No. 8091**. Regularly equipped with 9-inch flexible pad, 6 coarse, 4 medium and 2 fine abrasive discs, pad nut and pad nut wrench.

No. 909—9" EXTRA HEAVY DUTY BALL BEARING SANDER. The most powerful high speed production sander ever developed. Totally enclosed motor, special bevel gear drive, shock absorbing coupling and pad with adjustable flexibility are among the sterling features that give smooth operation and long life. The best machine for heavy duty grinding, wire brushing and polishing. Regular equipment includes a D-2 super-flexible pad, 4 each coarse, medium and fine abrasive discs, pad nut and pad nut wrench.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

GEARS, PINIONS AND SPINDLES: Heat-treated chrome nickel steel. **BEARING:** Full ball bearing throughout.

SWITCHES: Double pole, fully enclosed. Underwriter approved. **BRUSHES:** Pigtail—accessible from outside.

CORD and PLUG: Best rubber-covered three-wire, with unbreakable rubber plug.

	Diameter Disc	N.L. Speed R.P.M.	Amps. Full Load	Length Overall	Weight Pounds	Code
No. 707	7"	4200	3.3	15¾"	8¼	TIGRE
No. 809B	9"	2600	5.0	10½"	12	TRAGE
No. 909	9"	4000	6.5	21½"	20	TROML

For Sander Accessories see page 184.

Accessories for Sanders and Grinders

Grinder Accessories

Grinding and Wire Brush Wheels

A very complete line of high quality abrasive grinding wheels and wire brush wheels for use on Bench Grinders Nos. 806, 807, 510 and 710 and Portable Grinders Nos. 406 and 461B will be found on page 160.

Buffing Wheels

Six-inch wheels with $\frac{1}{2}$ -inch holes to fit Arbors Nos. 1518, 1523, 1026, 1049, 526, 349, 536 and 537 and Bench Grinders Nos. 906 and 607. Made up of 20-ply sections of which two are required to $\frac{1}{2}$ -inch face wheel. No. 1521 Plain No. 1721 Stitched

Buffing Spindles

Straight spindles with right-hand thread to fit the shaft of the grinders Nos. 1026 and 1049 specified to give a greater clearance from the grinder frame.

No. 536 Fitting Grinder No. 806
No. 537 Fitting Grinder No. 807

No. 1026 Fitting Grinders Nos. 906, 607, 506
No. 1049 Fitting Grinders Nos. 510, 710

Taper Thread Spindles

Provided with a deep, clean taper thread on which can be mounted cloth buffing wheels and wood center wheels which are made in great variety. Screws directly on the shaft of the grinders specified.

Nos. 526 and 349

No. 526 Fitting Grinders Nos. 906, 607, 506

No. 349 Fitting Grinders Nos. 510, 710

Drill Chucks



Nos. 1038 and 1512

These are Millers Falls three-jawed chucks for holding $\frac{3}{8}$ or $\frac{1}{2}$ inch round shank drills or rods. They are mounted on a spindle that screws directly on to the shaft of the grinders specified.

No. 1038 $\frac{3}{8}$ -inch Capacity Fitting Grinders Nos. 906, 607, 506

No. 1512 $\frac{1}{2}$ -inch Capacity Fitting Grinders Nos. 510, 710

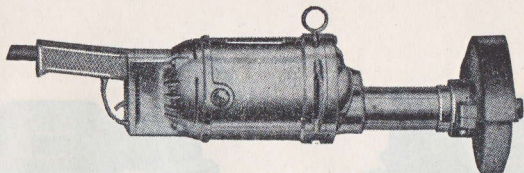
Accessories for Sanders and Grinders

For Nos. 707, 809B and 909 Sanders

No.	Fitting
7-inch Abrasive Discs— Fine, Medium or Coarse	707
9-inch Abrasive Discs— Fine, Medium or Coarse	809B-909
8091 Spindle Extension or Arbor	809B
8092 4-inch Cup Grinding Wheel	809B
3973 6-inch Steel Back Cup Grinding Wheel for stone or concrete	909
3974 6-inch Steel Back Cup Grinding Wheel for iron or steel	909
9092 Wheel Adapter for Cup Wheels	909
4208 $3\frac{1}{4}$ -inch Wire Cup Brush, $\frac{1}{2}$ or $\frac{5}{8}$ -inch bushing	707
4207 $4\frac{3}{4}$ -inch Wire Cup Brush, $\frac{5}{8}$ -inch bushing	709

No.	Fitting
7678 $5\frac{3}{4}$ -inch Wire Cup Brush, $\frac{5}{8}$ -inch bushing	909
9091 $\frac{5}{8}$ -inch—11 Spindle Nut for Cup Brush	909
707 7-inch Flexible Pad	707
507 7-inch Flexible Pad	809B
1008 7-inch Flexible Pad	1006A-1006B
709 9-inch Flexible Pad	809B
909 9-inch D29 Super-Flexible Pad	909
8093 7-inch Felt Rubbing Pad	707
8094 9-inch Felt Rubbing Pad	809B-909
277 7-inch Lamb's-Wool Bonnet	707
8098 9-inch Lamb's-Wool Bonnet	809B-909
9090 Suspension Strap, complete	909
775 Suspension Spring	909

Portable Electric Grinders



Designed throughout for heavy duty service such as snagging castings, grinding heavy welds, large wire brush work, removing rust, scale and paint, grinding off rivets, pins, bolts, etc. Totally enclosed motors exclude injurious dust and grit. Fitted with oversize ball bearings. One 6 x 1 x 3/8 inch grinding wheel supplied.

No. 461 is a high speed machine with No Load Speed of 5500 R.P.M. requiring a Bakelite or rubber-banded wheel for safety.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. VOLTAGES: 110, 150, 220, 250.

GEARS, PINIONS and SPINDLES: Heat-treated chrome nickel steel.

BEARINGS: Oversize ball bearings. BRUSHES: Pigtail—accessible from outside.

SWITCHES: Double pole, fully enclosed. Underwriter approved.

CORD and PLUG: 15 feet of best rubber-covered three-wire, with armored plug.

	Diam. Wheel	N.L. Speed R.P.M.	Amps. Full Load	Length	Weight	Code
No. 406B	6"	3700	6.0	23 1/2"	24 lbs.	TRUMP
No. 461	6"	5500	6.0	23 1/2"	24 lbs.	TRUYT

Accessories Listed on page 184.

Right Angle Drive

Right angle drilling, polishing, grinding, sanding and sawing can all be accomplished with this attachment and its accessories. The drive fits over the nose of Drills Nos. 514, 514B, 516 and 516B and clamps firmly, making a compact unit.

	Length	Weight	Code
No. 1006 Fitting Drills Nos. 514 and 516	6 3/4"	2 1/4 lbs.	DOBLA
No. 1007 Fitting Drills Nos. 514B and 516B	6 3/4"	2 1/4 lbs.	DOBMO

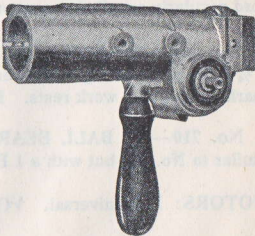
Supplied in three speed ratios—Fast, 1 1/2 to 1, Medium, 1 to 1, and Slow, 1 to 1 1/2.

No. 1006A POLISHING EQUIPMENT for use with above includes a 7-inch flexible pad, a 7-inch felt rubbing pad, a 7-inch lamb's-wool bonnet and an arbor nut. Slow speed ratio recommended. Weight, 1 1/8 lbs. Code, DODGE

No. 1006B GRINDING and SANDING EQUIPMENT includes a 7-inch flexible pad, one dozen 7-inch sanding discs, a 4-inch cup grinding wheel and an arbor nut. Fast speed ratio recommended. Weight, 3/8 lbs. Code, DUFLE

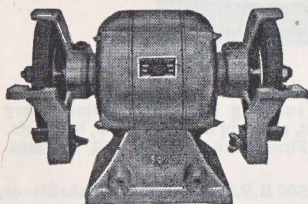
No. 1006C SAWING EQUIPMENT capable of sawing 1 1/2-inch stock. Includes one 6-inch combination saw, saw guard, depth gauge and arbor nut. Fast speed ratio recommended. Weight, 2 lbs. Code, DOING

No. 1006E CHUCK EQUIPMENT consists of a 5/16-inch Jacobs three-jawed, key-operated chuck for right angle drilling. On either fast, medium or slow ratios it drills 1 1/16-inch holes in wood with ease. Weight, 3/4 lb. Code, DOMED

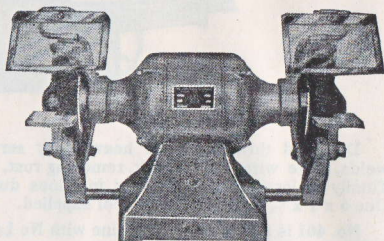


Electric Bench Grinders

✓
NEW



No. 806



No. 807

No. 806—6" H. D. BALL BEARING GRINDER. A heavy duty machine equipped with S.K.F. ball bearings. Motor and bearings enclosed in dust and grit tight housing. Split phase start, induction run motor of full $\frac{1}{3}$ H.P. rating. Adjustable work rests and heavy wheel guards. Heavy duty switch and 10 feet of cord regularly supplied except on 3-phase machines.

No. 826—6" H.D. BALL BEARING GRINDER. Same as No. 806, but with fully enclosed guards with dust exhaust connection and heavier tool rests and base.

No. 807—7" H.D. BALL BEARING GRINDER. A heavy duty machine with full $\frac{1}{2}$ H.P. totally enclosed motor with S.K.F. ball bearings. Capacitor start and run type. Work rests adjustable two ways. Heavy enclosed wheel guards. Heavy duty switch and 10 feet of cord regularly supplied except on 3-phase machines. Eye guards illustrated, extra equipment.

No. 510—10" BALL BEARING GRINDER. An excellent production machine with a $\frac{3}{4}$ H.P. ball bearing motor, enclosed wheel guards with dust exhaust connection, adjustable spark shields and work rests. Equipped with one coarse and one fine 10-inch wheel.

No. 710—10" BALL BEARING GRINDER. A powerful heavy duty ball bearing machine similar to No. 510 but with a 1 H.P. motor. No wheels are furnished.

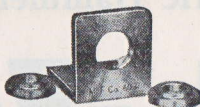
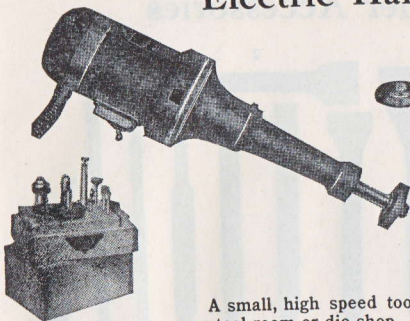
MOTORS: Not universal. **VOLTAGES:** 110, 220 A.C., 60 cycle, 1 phase. 115, 230 D.C.

	H.P. Rating	Wheels	N. L. Speed	Spindle Height	Weight Pounds	Code
No. 806	$\frac{1}{3}$	6 x $\frac{3}{4}$ x $\frac{1}{2}$ "	3450	6"	48	DUPSA
No. 826	$\frac{1}{3}$	6 x $\frac{3}{4}$ x $\frac{1}{2}$ "	3450	6 $\frac{1}{4}$ "	55	DORSA
No. 807	$\frac{1}{2}$	7 x 1 x $\frac{5}{8}$ "	3450	7 $\frac{1}{2}$ "	74	DOROT
No. 510	$\frac{3}{4}$	10 x 1 x $\frac{3}{4}$ "	1725	10"	155	DREAM
No. 710	1	10 x 1 $\frac{1}{4}$ x $\frac{3}{4}$ "	1725	11"	205	WEAVE

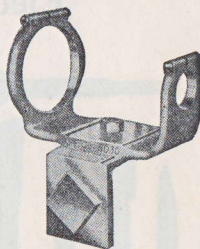
Also furnished in Other Voltages—3 Phase and 50 Cycles.

For Accessories see page 184.

Electric Hand Grinder



No. 6031 Adapter



No. 6030 Adapter

A small, high speed tool that will cut costs and step up production in any tool room or die shop. It provides the fastest and cheapest method of grinding clearances, making corrections for shrinkage, working down contours, grinding out cavities, profiling, sharpening dies, special finishing and hundreds of other operations. Readily adaptable to lathe and milling machine applications.

Motor and spindle housing moulded from a tough, durable composition non-conductive of heat and making the tool comfortably cool, very light in weight and easy to manipulate with one or two hands.

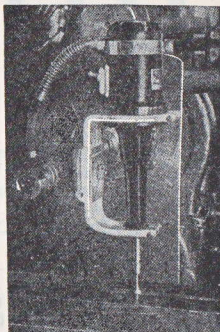
Positive spindle lock for convenience when changing wheels, extensions or chucks.

Regular equipment consists of 3 grinding wheel extensions, 1— $\frac{1}{4}$ -inch arbor, 1— $\frac{1}{8}$ -inch collet chuck, 1— $\frac{1}{8}$ -inch chuck arbor, 1— $\frac{1}{8}$ -inch extension arbor, 1— $1\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$ grinding wheel, 1— $\frac{3}{8} \times \frac{1}{8} \times \frac{3}{8}$ grinding wheel, 3 assorted mounted wheels and 1 chuck wrench, all packed in a wooden box.

MOTOR: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

CHUCKING CAPACITY: $\frac{1}{8}$ -inch collet chuck. $\frac{3}{32}$ and $\frac{1}{4}$ inch available.

CORD and PLUG: 12 feet of best rubber-covered three-wire, with unbreakable plug.



Die Grinding on Milling Machine

	N. L. Speed R.P.M.
No. 306	18,000

Length Overall
11"

Weight Pounds
2 $\frac{7}{8}$

Code TRUTH

Accessories

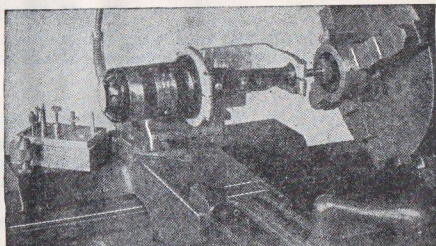
No. 6030 Lathe Adapter	Code
For attaching to slide rest of lathe for external and internal grinding	TRUVA

No. 6031 Milling Machine Adapter	
For mounting No. 6030 on milling spindles. Collars for $\frac{3}{4}$, 1 and $1\frac{1}{8}$ inch spindles	TRUXO

No. 1524 $\frac{3}{32}$ " Collet Chuck	DAINA
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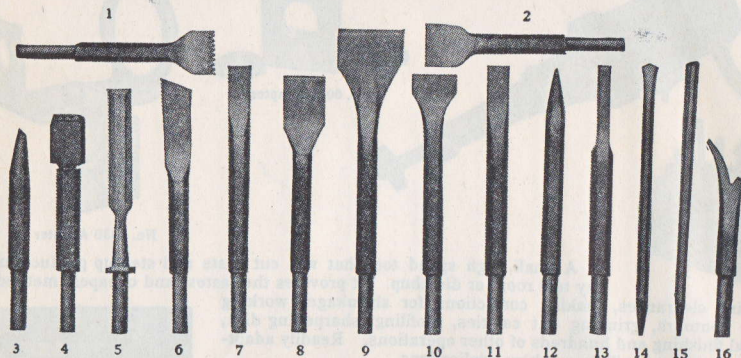
No. 1525 $\frac{1}{4}$ " Collet Chuck	DAJOK
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No. 1527 $\frac{5}{32}$ " 3-Jawed Chuck	DAKAX
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Lathe Set Up for Internal or External Grinding

Electric Hammer Accessories



High Grade Standard Round Shank Tools

		For Nos. 816, 1058	For Nos. 1716, 2516, 3216
1	Buhr Stone Dressing Chisel.....	No. 1L	No. 1H
2	Stone Dressing Chisel.....	No. 2L	No. 2H
3	Round Nose Chipping Chisel.....	No. 3L	No. 3H
4	Bush Hammer.....	No. 4L	No. 4H
5	3/4-Inch Wood Chisel.....	No. 5L	No. 5H
6	Mortar Cutting Chisel.....	No. 6L	No. 6H
7	Calking Tool.....	No. 7L	No. 7H
8	Scaling Chisel.....	No. 8L	No. 8H
9	Brick Cleaning Chisel.....	No. 9L	No. 9H
10	2-Inch Cutting Chisel.....		No. 10H
11	Cold Chisel.....	No. 11L	No. 11H
12	Stone Point.....	No. 12L	No. 12H
13	Cape Chisel.....	No. 13L	No. 13H
14	Diamond Point Chisel.....	No. 14L	No. 14H
15	Star Drills (see below).....	No. 15L	No. 15H
16	Beading Tool.....	No. 16L	No. 16H

No. 15 Star Drills

Star Drills in all sizes from 1/4 to 2 inch and in 6, 9, 12, 18 and 24 inch lengths are available. The two smallest sizes are not supplied in 18 and 24 inch lengths. Specify the number of the hammer with which they are to be used.

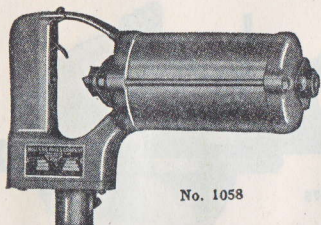
Rotary Converters

Where Direct Current only is available, it is necessary to convert it to A.C. to operate Millers Falls Hammers. Converters can be supplied to convert 110 or 220 Volts D.C. to 110 Volts A.C. 60 Cycle. Be sure to state voltage and number of hammer it is to operate.

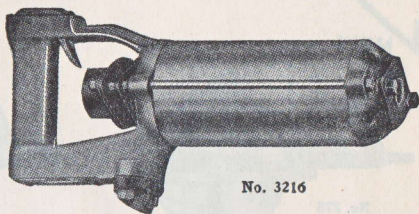
Transformers

For stepping down 220 Volt, 60 Cycle, alternating current to 110 Volt, 60 Cycle to meet the operating requirements of Millers Falls Hammers. Made in two capacities. Be sure to state number of hammer to be operated.

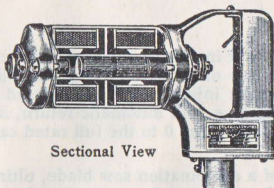
Electric Hammers



No. 1058



No. 3216



Sectional View

Millers Falls Hammers are built on an entirely new principle. The only moving part is the solid steel hammer head which strikes 3,600 powerful blows per minute, actuated by powerful electro magnets. The advantage of such unique and simple construction and operation is obvious. There are no motors, gears, shafts or bearings to deteriorate under the constant vibration. They can be depended on for longer life and more satisfactory service than motor-operated types.

They operate only on Alternating Current. Where Direct Current only is available, it is necessary to introduce a rotary converter to convert it to Alternating Current. They are regularly supplied for use on 110, 220 and 250 volt circuits. Hammers for use on 220 or 250 volts are supplied with a special tube type control box housing a transformer that steps the voltage down to a safe 110 for which the hammers are wound.

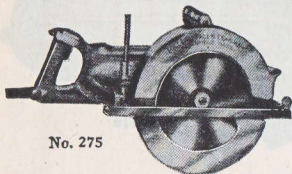
The capacities specified are for seasoned concrete. At their rated capacity they will drill at the rate of 1 to 2 inches per minute, depending on the hardness of the material.

All hammers are furnished complete with control box, 15 feet of cord, and a 10-foot extension, necessary tool chucks, drift pin, can of M. F. hammer lubricant, service wrench and instruction cord, all packed in a substantial wooden carrying case.

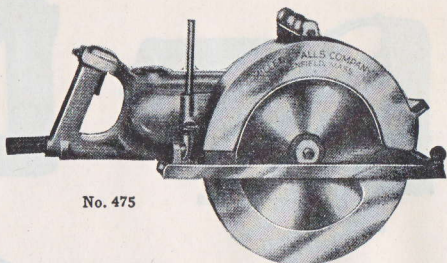
	Capacity	K. W.	Length	Diameter	Weight Pounds	Code
No. 816	1/2"	.150	9 3/4"	3 1/4"	8	AMMOT
No. 1058	5/8"	.155	10"	3 1/2"	9	ACFGK
No. 1716	1 1/8"	.355	14"	4"	20	AGILO
No. 2516	1 1/2"	.620	15"	5"	34	AMNAR
No. 3216	2"	1.000	16"	4"	20	AMOQT

Portable Electric Saws

✓
NEW



No. 275



No. 475

New improved heavy duty saws of increased capacity heavily powered and finely engineered for exceptional performance and ease of control. Every possible precaution has been taken to safeguard the operator from possible injury. A fully enclosed top guard is provided and the bottom guard is of the telescoping type with automatic return, insuring maximum safety. The cutting depth in all sizes is adjustable from 0 to the full rated capacity. All sizes cut any bevel up to 45 degrees.

Regular equipment consists of a combination saw blade, tilting base for beveling, rip sawing guide, saw wrench, lubricant and a substantial wooden carrying case.

MOTORS: Universal for D.C. or A.C. 25 to 60 cycles. **VOLTAGES:** 110, 150, 220, 250.

SWITCHES: Automatic trigger type.

CORD and PLUG: 14 feet of best rubber-covered three-wire, with armored plug.

	Straight Cut	N.L. Speed R.P.M.	45° Bevel	Diameter Saw	Weight Pounds	Code
No. 275	2¾"	2500	2"	8½"	28	DRAW
No. 375	3¾"	2000	2¾"	10½"	35	DIREM
No. 475	4¾"	1875	3½"	12½"	40	DIRIT

Electric Saw Accessories



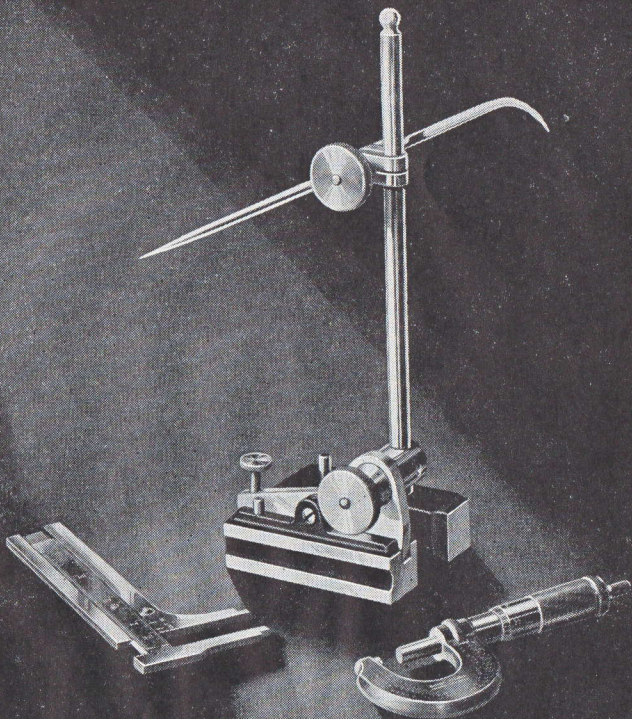
Finest quality replacement saws for M.F. portable electric saws. The new series require 8½, 10½ and 12½ inch diameters. The discontinued series Nos. 102, 103, and 104 take the 7, 9 and 11 inch diameters respectively.

	No. 102 7" Diam.	No. 275 8½" Diam.	No. 103 9" Diam.	No. 375 10½" Diam.	No. 104 11" Diam.	No. 475 12½" Diam.
Type Saw	No. 17	No. 18	No. 19	No. 20	No. 111	No. 112
Crosscut	No. 27	No. 28	No. 29	No. 30	No. 211	No. 212
Rip	No. 37	No. 38	No. 39	No. 40	No. 311	No. 312
Combination	No. 47	No. 48	No. 49	No. 50	No. 411	No. 412
Planer	No. 77	No. 78				
Metal Cutting						

Abrasive Discs

7, 9 and 11 inch diameter, for cutting slate, stone or steel—specify type required.

PRECISION TOOLS



**GOODELL
PRATT**
1500 GOOD TOOLS

**MILLERS FALLS
TOOLS**

SINCE
1868

Tempered Steel Rules

"Goodell-Pratt" Steel Rules are made in a wide variety of styles, including light, semi-flexible, flexible, and narrow.

The steel used is a fine quality of carefully heat-treated crucible steel. They are ground and polished to a beautiful satin finish, and precisely graduated on dividing engines developed and perfected over a period of forty years by our own engineers. The graduation lines are of different lengths and sharply and uniformly etched, making them very easy to read correctly. The figures are deeply etched, of good size, and shaded for legibility.

The standards to which all our rules are made are among the finest in existence, and are checked at intervals with the standards of the United States Bureau of Standards at Washington. Every Goodell-Pratt Rule is as perfect a reproduction of these standards as skilled mechanics and precision machinery can produce, and we guarantee them to be as close to absolute accuracy as it is possible, commercially, to make them.

The following standard English graduations are employed:

No. 4—8ths, 16ths, 32nds, and 64ths inch.

No. 10—32nds and 64ths inch.

The former is employed on all rules and square blades that are graduated on four edges. No. 10 is used on Flexible and Narrow Rules where only two edges are graduated.

Light Tempered Rules

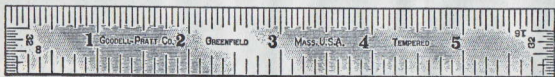


Graduated full length in No. 4 graduation. No. 213 end graduated.

	Length	Approximate Width	Thickness	Code	Price Each
No. 213	6 inches	$\frac{3}{4}$ inch	$\frac{1}{20}$ inch	YEPOP	\$0.90
No. 215	12 inches	1 inch	$\frac{1}{16}$ inch	YERAN	1.65
No. 216	18 inches	1 inch	$\frac{1}{16}$ inch	YERNA	2.60

Packed six in a box.

Semi-Flexible Tempered Rules



Graduated full length in No. 4 graduation. No. 253 end graduated.

	Length	Approximate Width	Thickness	Code	Price Each
No. 253	6 inches	$\frac{5}{8}$ inch	$\frac{1}{50}$ inch	YIAWY	\$0.90
No. 255	12 inches	$\frac{3}{4}$ inch	$\frac{1}{50}$ inch	YIBCA	1.65

Packed six in a box.

Flexible Tempered Rule



Graduated full length in No. 10 graduation. No. 264 end graduated.

No. 264	Length 6 inches	Approximate Width $\frac{5}{8}$ inch	Thickness $\frac{1}{100}$ inch	Code YTCFE	Price Each \$0.90
Packed six in a box.					

Light Tempered Rule

Numbered for Quick Reading

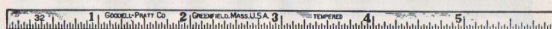


This 6-inch rule is the same as our No. 213. For fast reading the 64th graduations are numbered at each 8th graduation line.

Graduated full length No. 4 graduation. No end graduations.

No. 866	Length 6 inches	Approximate Width $\frac{3}{4}$ inch	Thickness $\frac{1}{20}$ inch	Code ZEPUL	Price Each \$0.90
Packed six in a box.					

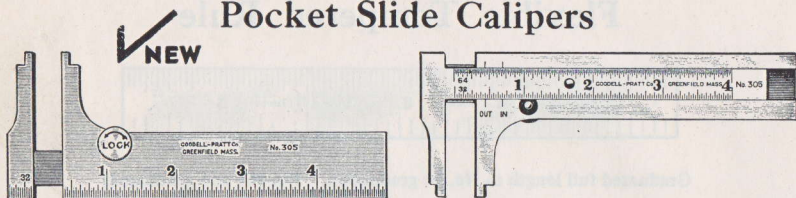
Narrow Tempered Rule



Graduated full length in No. 10 graduation.

No. 274	Length 6 inches	Approximate Width $\frac{1}{4}$ inch	Thickness $\frac{1}{20}$ inch	Code YIDGE	Price Each \$0.85
Packed six in a box.					

Pocket Slide Calipers



The most popular tool made for outside and inside measurements. Graduations on the satin-finished stock and slide are clearly etched in 32nds and 64ths respectively. Clamping or locking device easily and positively controlled by the thumb of the same hand that holds the tool.

Readings for outside or inside measurements are read direct as shown in the cut.

	Length	Depth of Jaws	Minimum Inside Measurement	Code	Price Each
No. 303	3 inches	$1\frac{1}{16}$ inch	.125 inch	YIHLU	\$4.00
No. 305	5 inches	$1\frac{7}{16}$ inches	.250 inch	YIHTO	5.00

Packed one in a box.

Tempered Hook Rule

Numbered for Quick Reading



Designed for taking measurements over rounded corners, through hubs of wheels or pulleys, or for setting dividers or inside calipers and many similar uses.

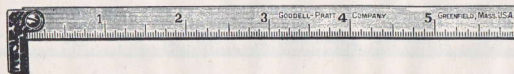
The hardened steel hook is locked on to the rule by a hardened eccentric bolt and is easily detachable when not wanted.

Graduated full length in No. 4 graduation with the 64th graduations numbered at each 8th graduation line.

	Length	Width	Thickness	Code	Price Each
No. 966	6 inches	$\frac{3}{4}$ inch	$\frac{1}{20}$ inch	ZIJJO	\$1.25

Packed one in a box.

Narrow Hook Rule

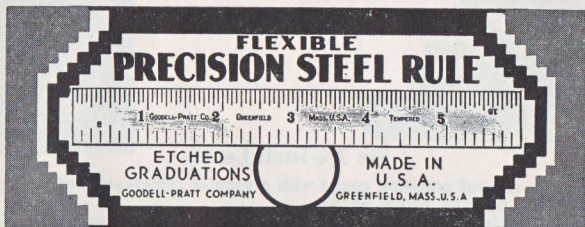


Similar to the hook rule above, but with a narrow tempered rule and a smaller hook. Graduated full length in No. 10 graduation.

	Length	Width	Thickness	Code	Price Each
No. 771	6 inches	$\frac{3}{8}$ inch	$\frac{1}{20}$ inch	ZEAMD	\$1.20

Packed one in a box.

No. 106 Flexible Steel Rule



A high grade, precision 6-inch flexible steel rule in every sense of the word.

Made of carefully heat-treated crucible steel with ground edges and precisely and clearly etched graduations in 16ths and 32nds of an inch.

Each rule is mounted on an attractive gold card printed in red and black and packed in a moisture-proof cellophane envelope.

	Length	Width	Thickness	Price Each
No. 106	6 inches	$\frac{5}{8}$ inch	$\frac{1}{100}$ inch	\$0.50

Packed six in a box.

No. 20 Vest Pocket Rule NEW

A precision rule that is the best answer to the demand for a reliable rule to carry in the vest pocket at a popular price. The sliding clip with which this rule is equipped also acts as a base to make the rule a depth gauge. Length, 6 inches; width, $\frac{1}{4}$ inch, and thickness, $\frac{1}{20}$ inch.

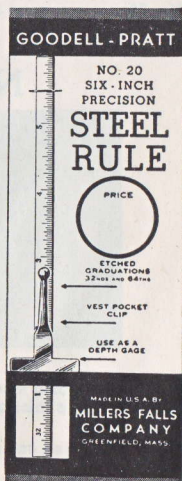
Nicely finished with genuine etched figures and graduations that are sharp and easy to read.

Graduated in 32nds of an inch on one side and 64ths on the other.

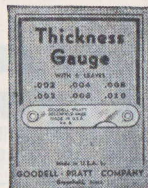
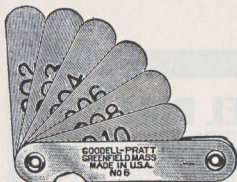
Mounted as illustrated and enclosed in a cellophane envelope.

	Length	Width	Code	Price Each
No. 20	6 inches	$\frac{1}{4}$ inch	WYUCH	\$0.40

Packed six in a box. Weight, 4 ounces.



No. 6 Thickness Gauge



Six 2 1/4-Inch Leaves

A big value in a six-leaf precision gauge with a popular combination of thicknesses, namely .002, .003, .004, .006, .008 and .010 of an inch.

The leaves are made of the finest Swedish steel with the working ends carefully finished. The thickness is clearly etched on each blade. A double steel plate case is provided to protect the leaves when not in use.

Furnished mounted on the gold card (3 1/2 x 4 1/2 inches), printed in red and black, illustrated above, or six in a box.

	Leaves	Weight Box	Code	Price Each
No. 6 Mounted on card	2 1/4 x 1/2 inch	6 ozs.	WYGBO	\$0.30
No. 6 Unmounted	2 1/4 x 1/2 inch	6 ozs.	WYGDE	.30

Packed six in a box.

No. 25 Thickness Gauge

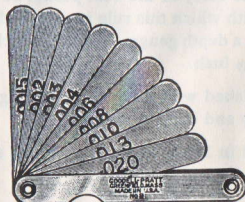
Twenty-Five 2 1/4-Inch Leaves

Same as No. 6 above, but with 25 leaves, namely: .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024 and .025 inch thick.

	Leaves	Weight Box	Code	Price Each
No. 25	2 1/4 x 1/2 inch	1 lb.	WYZCY	\$1.10

Packed six in a box.

No. 9 Thickness Gauge



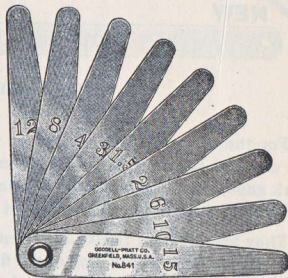
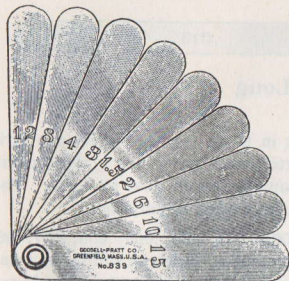
Nine 3 1/2-Inch Leaves

With nine Swedish steel leaves, .0015, .002, .003, .004, .006, .008, .010, .013 and .020 of an inch thick, with the thickness clearly etched on each.

	Leaves	Weight Box	Code	Price Each
No. 9 Mounted on card	3 1/2 x 1/2 inch	1/2 lb.	WYIDA	\$0.50
No. 9 Unmounted	3 1/2 x 1/2 inch	1/2 lb.	WYIFO	.50

Packed six in a box.

Nos. 839 and 841 Thickness Gauges



Nine 3¹/₁₆-Inch Leaves

The nine leaves of these thickness gauges include all the most used sizes in automotive work and represent a very popular assortment, as follows: .0015, .002, .003, .004, .006, .008, .010, .012, and .015 inch thick. These make possible singly and in combination almost any thickness from .0015 to .0615 by half-thousandths of an inch.

	Leaves	Size Leaves	Code	Price Each
No. 839	Straight	3 ¹ / ₁₆ x 1/2 inch	ZEMAD	\$0.70
No. 839	Straight	Display with 6 gauges	ZEMAT	4.20
No. 841	Tapered	3 ¹ / ₁₆ x 1/2 inch	ZEMEF	.75
No. 841	Tapered	Display with 6 gauges	ZEMEL	4.50

Packed six in a box or one display in an envelope.

Nos. 359 and 480 Thickness Gauges

Nine and Twenty-Five 2¹/₄-Inch Leaves



These gauges are made of the finest Swedish thickness gauge steel, ground to extreme accuracy and the working ends of the blades carefully finished. The thickness of each leaf is clearly etched on it. The leaves fold into a steel case. Length overall, 2³/₄ inches.

No. 359 has nine 2¹/₄ x 1/2 inch leaves as follows: .0015, .002, .003, .004, .006, .008, .010, .012, and .015. These make possible singly or in combination most any thickness by half-thousandths from .0015 to .0615.

No. 480 has twenty-five 2¹/₄ x 1/2 inch leaves, from .0015 to .025, which used singly or in combination give almost any thickness up to .3255 by half-thousandths.

	Number Leaves	Size Leaves	Code	Price Each
No. 359	9	2 ¹ / ₄ x 1/2 inch	YIZOF	\$1.35
No. 480	25	2 ¹ / ₄ x 1/2 inch	YOSDO	2.50

Packed one in a box, 12 or 50 boxes in a carton.



No. 100 Thickness Stock Strips



Seventeen Sizes, 12 Inches Long

For the automotive mechanic or toolmaker feeler stock in these convenient 12-inch strips is a decided convenience and economy. They are used extensively for setting ignition points, spark gaps, valve tappets and checking ring clearances, piston clearances, gear play, etc. They are equally valuable to the machinist and toolmaker for a great variety of purposes.

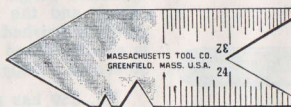
They are made in twelve different thicknesses: .0015, .002, .003, .004, .005, .006, .007, .008, .010, .012, .013, and .015 inch of the finest obtainable stock ground to thickness within very close limits. The ends are nicely rounded and finished so that they are accurate and without any burred edges.

Each strip is very legibly etched with its thickness at two points and is protected from stain and rust by being packed in an individual cellophane envelope.

Size	Dimensions	Price per Foot	Size	Dimensions	Price per Foot
.0015	12 x 1/2 inch	\$0.34	.010	12 x 1/2 inch	\$0.20
.002	12 x 1/2 inch	.34	.011	12 x 1/2 inch	.20
.003	12 x 1/2 inch	.34	.012	12 x 1/2 inch	.20
.004	12 x 1/2 inch	.24	.013	12 x 1/2 inch	.20
.005	12 x 1/2 inch	.24	.015	12 x 1/2 inch	.20
.006	12 x 1/2 inch	.24	.016	12 x 1/2 inch	.20
.007	12 x 1/2 inch	.20	.018	12 x 1/2 inch	.20
.008	12 x 1/2 inch	.20	.020	12 x 1/2 inch	.20
.009	12 x 1/2 inch	.20			

Packed six in a substantial telescope box.

Tempered Center Gauge



This center gauge is made from the very best quality of spring tempered crucible steel, graduated on our perfected dividing engines. It is accurately ground on all faces, and lapped in the notches to a light tight fit with a standard. It has the highest possible finish and is guaranteed accurate.

Graduated one corner each in 32nds, 24ths, 20ths, and 14ths. Thickness, 1/30 inch.

No. 438

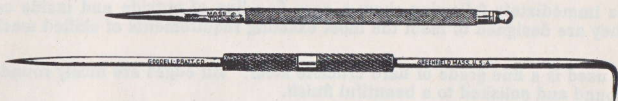
Angles
60 degrees

Code
YOMAS

Price Each
\$0.50

Packed six in a box.

Scribers



Made of fine grade round steel with beautifully tapered points carefully tempered, ground and polished. Bodies nicely knurled to provide a sure grip. Points in Nos. 61 and 62 are replaceable.

		Length	Body	Weight per Box	Code	Price Each
No. 58	Single	4½ inches	5/32 inch	4 OZS.	YAHOC	\$0.25
No. 61	Double	6½ inches	¼ inch	5 OZS.	YAIGZ	.40
No. 62	Double	9 inches	¼ inch	6 OZS.	YAIJA	.45

No. 75 Scriber



The body of this tool is made of fine knurled hollow steel tubing and fitted with a chuck which holds the finely drawn and tempered scriber point. The point can be entirely removed and reversed so that the point is entirely protected and the tool can be carried in the pocket if desired. Overall length, 4¾ inches.

No. 75	Length of Blade 2¾ inches	Weight ½ OZ.	Code YAJRA	Price Each \$0.35
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Packed six in a box.

Nos. 755 and 889 Surface Gauges

These surface gauges, although very moderately priced, are very well made and finished, and embody many very desirable features.

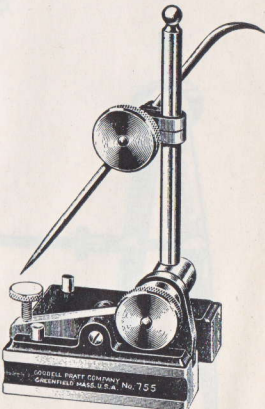
They are offered in two lengths of spindle and are equipped with a 5-inch scriber and a hardened steel base measuring 2¼ x 1½ x ¾ inch.

The base is carefully ground for work on a surface plate and also grooved for use on cylindrical surfaces. Corrugated finger grips are milled in the sides. The base front is slotted so that the spindle can be turned down and the tool used as a depth gauge. Also by loosening the thumb screw of the binder head the spindle can be dropped down through the slot and the marker on its end used as a scratch gauge.

The scriber head has a spring control which holds both scriber and head at any desired point while the thumb nut is being tightened. This feature, with the fine adjustment provided in the base, allows very quick, accurate settings.

	Height	Weight
No. 755	5⅞ inches	11 OZS.
No. 889	9⅞ inches	12 OZS.

Packed one in a box.



	Code	Price Each
	ZAYLE	\$3.20
	ZEYGD	3.50

Spring Calipers and Dividers

The pages immediately following show a very fine line of outside and inside calipers and dividers. They are designed to meet the most exacting requirements of skilled machinists and toolmakers.

The stock used is a fine grade of hard crucible steel. All edges are nicely rounded and the entire tool ground and polished to a beautiful finish.

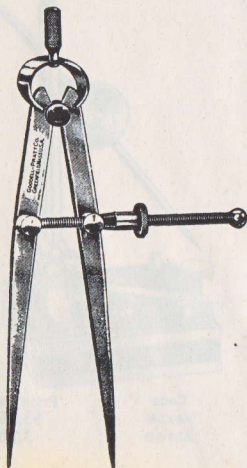
The shape of the legs and points has been developed for maximum accuracy in calipering of every description and for transferring measurements to or from a micrometer or steel rule within very close limits. Inside caliper legs are shaped to permit their use in unusually small spaces. Divider points are nicely tapered and carefully hardened and tempered.

Precisely machined and hardened screws are used on all spring calipers and dividers. The nuts are of two types, "solid" and "quick," both of which are hardened. Solid nuts are of ordinary construction. The threaded portion of quick nuts is made in two parts which are spread apart by a small spring when the pressure of the leg is removed. This disengages the threads and the nut can then be slipped over the entire length of the screw or any portion of it very rapidly and without turning it. The instant the leg is allowed to press against the nut it engages the screw thread again and the final adjustment is made by turning the nut in the usual manner.

Side deflection in calipers or dividers destroys their value for precise work, and the greatest care is used to eliminate it from these spring calipers and dividers. Accurately machined and hardened steel spools or fulcrum studs with a good wide face are used and the bearings in the legs are carefully fitted to them. These are held in close contact by stiff, heat-treated steel springs, making a very rigid tool.

Spring dividers have a finely knurled handle riveted to the spring to facilitate the describing of arcs and circles.

Spring Dividers



With Solid Nut

	Size	Code	Price Each
No. 513	3 inches	YUAJT	\$0.85
No. 514	4 inches	YUASF	.90
No. 515	5 inches	YUBAM	1.00
No. 516	6 inches	YUBIP	1.05
No. 517	8 inches	YUBMA	1.35
No. 570	10 inches	YULYE	1.65
No. 571	12 inches	YUMAY	1.80

With Quick Nut

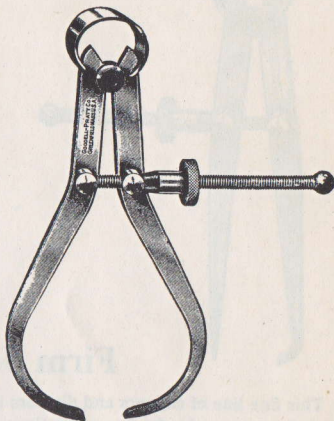
	Size	Code	Price Each
No. 613	3 inches	YUVNY	\$1.05
No. 614	4 inches	YUVUM	1.10
No. 615	5 inches	YUWAJ	1.15
No. 616	6 inches	YUWIL	1.20
No. 617	8 inches	YUWYP	1.50
No. 670	10 inches	ZAHZY	1.80
No. 671	12 inches	ZAIFS	2.00

Packed three in a box.

Outside Spring Calipers

With Solid Nut

No.	Size	Code	Price Each
No. 501	3 inches	YOWEF	\$0.85
No. 502	4 inches	YOWIG	.90
No. 503	5 inches	YOWOH	1.00
No. 504	6 inches	YOWYK	1.05
No. 505	8 inches	YOYFA	1.20
No. 550	10 inches	YUHET	1.65
No. 551	12 inches	YUHSA	1.80



With Quick Nut

No.	Size	Code	Price Each
No. 601	3 inches	YURAD	\$1.05
No. 602	4 inches	YURFE	1.10
No. 603	5 inches	YURIG	1.15
No. 604	6 inches	YURUJ	1.20
No. 605	8 inches	YUSEG	1.40
No. 650	10 inches	ZADVY	1.80
No. 651	12 inches	ZADYV	2.00

Packed three in a box.

Inside Spring Calipers

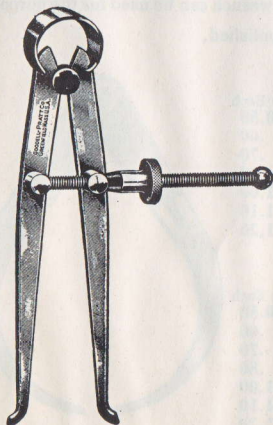
With Solid Nut

No.	Size	Code	Price Each
No. 507	3 inches	YOYUK	\$0.85
No. 508	4 inches	YOYZM	.90
No. 509	5 inches	YOZHE	1.00
No. 510	6 inches	YOZMY	1.05
No. 511	8 inches	YOZOK	1.20
No. 560	10 inches	YUJEV	1.65
No. 561	12 inches	YUJOY	1.80

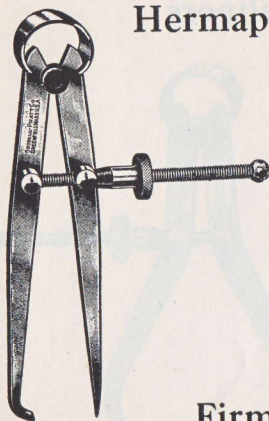
With Quick Nut

No.	Size	Code	Price Each
No. 607	3 inches	YUSYL	\$1.05
No. 608	4 inches	YUTAG	1.10
No. 609	5 inches	YUTGA	1.15
No. 610	6 inches	YUTKO	1.20
No. 611	8 inches	YUVAH	1.40
No. 660	10 inches	ZAFUV	1.80
No. 661	12 inches	ZAFWY	2.00

Packed three in a box.



Hermaphrodite Spring Calipers



With Solid Nut

	Size	Code	Price Each
No. 540	3 inches	YUFER	\$0.85
No. 541	4 inches	YUFTO	.90
No. 542	5 inches	YUFWY	1.00
No. 543	6 inches	YUGAR	1.10

With Quick Nut

	Size	Code	Price Each
No. 640	3 inches	ZACRO	\$1.00
No. 641	4 inches	ZACTY	1.10
No. 642	5 inches	ZACUS	1.20
No. 643	6 inches	ZACYT	1.25

Packed three in a box.

Firm Joint Calipers

This fine line of calipers and dividers is in demand on account of the excellent material from which they are made, the fine proportions of the legs, the adjustable tension of the joint and their superior finish.

They are made of spring tempered crucible steel, with all corners well rounded and the legs nicely proportioned. The points are carefully shaped for obtaining close, accurate measurements. The sizes given are the lengths of the legs, and their measuring capacity is considerably greater than their rated capacity.

Any desired tension of the joint can be secured by adjusting the friction screw. This is provided with a hexagon head on all sizes so that any ordinary wrench can be used for the purpose.

The finish is unusually fine, every part being beautifully polished.

Outside

	Size	Code	Price Each
No. 400	3 inches	YOGAM	\$0.50
No. 401	4 inches	YOGIP	.60
No. 402	5 inches	YOGMA	.70
No. 403	6 inches	YOGNE	.80
No. 404	8 inches	YOGSY	1.00
No. 405	10 inches	YOGUR	1.10
No. 406	12 inches	YOGYS	1.20



Inside

	Size	Code	Price Each
No. 420	3 inches	YOJOS	\$0.50
No. 421	4 inches	YOJPA	.60
No. 422	5 inches	YOJSO	.70
No. 423	6 inches	YOJUT	.80
No. 424	8 inches	YOJVV	1.00
No. 425	10 inches	YOJYV	1.10
No. 426	12 inches	YOKER	1.20



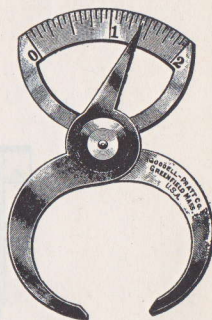
Packed three in a box.

No. 662 Indicating Caliper

The most convenient little caliper ever made for measuring thicknesses over shoulders or otherwise, lengths and diameters up to 2 inches. The arc is accurately graduated in 16ths of an inch and the indicating point is nicely shaped for close readings. Made of hard crucible steel with a beautiful polished finish. The joint has a smooth, even friction. Measures only 3 inches over all and weighs only 1 ounce. Can be carried in the vest pocket without knowing it is there.

No. 662	Capacity 2 inches	Code ZAGAR	Price Each \$1.10
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Packed three in a box.



No. 331 Indicating Caliper

This caliper is the same as No. 662 above, but not so highly finished, so that its price can be materially reduced. One of the handiest measuring tools ever introduced. Capacity, 2 inches.

Each caliper packed in a cellophane envelope and mounted on the attractive two-color card illustrated.

No. 331	Capacity 2 inches	Code YIOKA	Price Each \$0.60
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Packed six in a box.

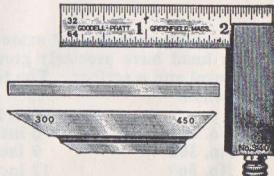
No. 222 Double Steel Square

A toolmaker's square with a $2\frac{1}{2} \times \frac{1}{2}$ inch sliding blade which can be quickly adjusted to any length, right or left, and securely locked by tightening the thumb nut in the beam. Blade is graduated on one side only in 32nds and 64ths of an inch.

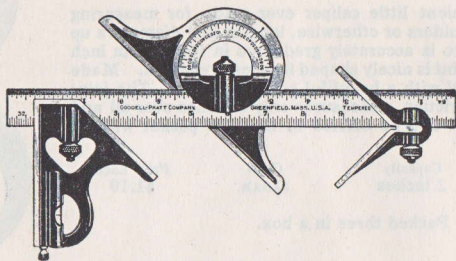
A bevel blade, 45 degrees on one end and 30 degrees on the other, and a narrow blade $\frac{1}{8}$ inch wide interchangeable with graduated blade are regular equipment.

No. 222	Length Blade $2\frac{1}{2}$ inches	Weight 1 oz.	Code YISCO	Price Each \$3.85
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Packed one in a box.



Combination Sets



Tempered Steel Blades

The most useful precision tool ever made for machinists and toolmakers. They are provided with a beam, center head and a No. 180 Protractor, shown on page 205. All nicely finished in ebony enamel. All working faces precisely ground. The beam is equipped with small level and scriber.

The accurately graduated, tempered crucible steel blades are graduated in No. 4 graduation.

	Length Blade	Weight	Code	Price Each
No. 390	9 inches	1½ lbs.	YOERZ	\$6.00
No. 391	12 inches	1½ lbs.	YOEVD	6.60
No. 392	18 inches	1½ lbs.	YOEWF	7.50

Packed one in a box.

Combination Squares



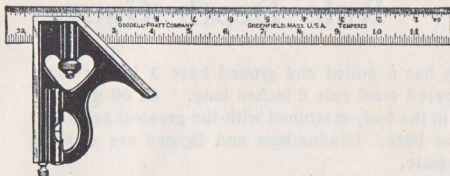
Tempered Steel Blades

These squares are the same as the sets above, but without the protractor. The beam and center head have precisely ground faces and are finished in ebony enamel. Beam equipped with level and a scriber. The tempered crucible steel blades are accurately graduated in No. 4 graduation.

	Length Blade	Weight	Code	Price Each
No. 361	6 inches	⅝ lb.	YIZYH	\$2.40
No. 362	9 inches	¾ lb.	YOAGM	3.00
No. 363	12 inches	⅞ lb.	YOAHN	3.60
No. 364	18 inches	1 lb.	YOAJP	4.50

Packed one in a box.

Combination Squares



Tempered Steel Blades

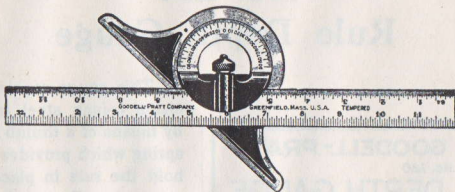
These squares are the same as those on the preceding page but without protractor or center head. The beams have precisely ground faces and are equipped with a small level and scribe. They are nicely finished in ebony enamel.

The tempered crucible steel blades are accurately graduated, clearly etched in No. 4 graduation.

	Length Blade	Weight	Code	Price Each
No. 371	6 inches	$\frac{1}{2}$ lb.	YOBJE	\$1.80
No. 372	9 inches	$\frac{3}{8}$ lb.	YOBLO	2.40
No. 373	12 inches	$\frac{3}{4}$ lb.	YOBOL	2.90
No. 374	18 inches	$\frac{7}{8}$ lb.	YOBUM	3.90

Packed one in a box.

Bevel Protractors



Tempered Steel Blades

The head of these beautifully made tools is about 7 inches long. The face is precisely ground and polished. The turret carries the blade and a small, accurately set level. It is accurately graduated 90 degrees either side of 0 and every care is taken to have it right angles to the face of the head.

The blade is made of tempered crucible steel accurately graduated in No. 4 graduation.

	Length Blade	Weight	Code	Price Each
No. 180	Protractor head only	$\frac{5}{8}$ lb.	YEJEG	\$3.00
No. 181	9 inches complete	$\frac{3}{4}$ lb.	YEJJO	4.50
No. 182	12 inches complete	$\frac{7}{8}$ lb.	YEJUK	5.10
No. 183	18 inches complete	1 lb.	YEEGA	6.00

Packed one in a box.

No. 80 Rule Depth Gauge

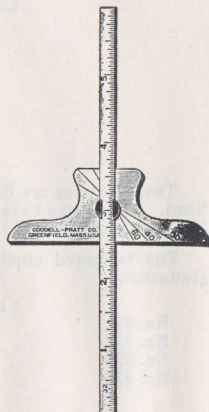
This depth gauge has a milled and ground base 3 inches long and a narrow tempered steel rule 6 inches long. At 90 degrees the rule sets in a slot in the body machined with the greatest accuracy at right angles to the base. Graduations and figures are cleanly etched and easily legible.

The blade can be turned parallel to the base so as to occupy but little room in the tool chest or in one's pocket. The tool also makes a useful T-square. The head is graduated with lines indicating 30°, 45° and 60°.

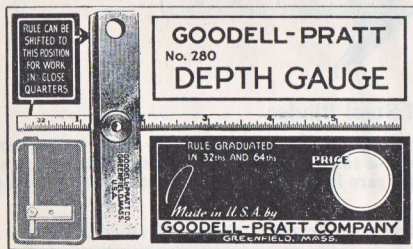
Rule graduated in No. 10 graduation.

	Length	Width	Base	Code	Price Each
No. 80	6 inches	1/4 inch	3 inches	YAPUL	\$2.00

Packed one in a box.



No. 280 Rule Depth Gauge



This gauge consists of a narrow precision 6-inch steel rule held in a groove by means of a thumb nut with an internal spring which provides sufficient friction to hold the rule in place while adjustments are made. For work in close quarters the rule may be shifted to groove provided near the end of the base. Rule may be entirely removed if desired. It is graduated in 32nds and 64ths. Base is 3 1/2 inches long, nicely polished and with one edge beveled.

Each gauge mounted on a two-color card and enclosed in a cellophane envelope.

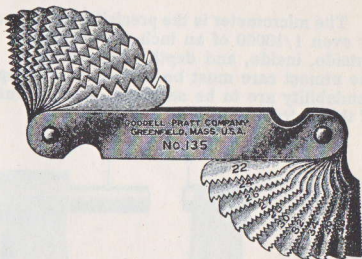
	Length	Width	Base	Code	Price Each
No. 280	6 inches	1/4 inch	3 1/2 inches	YIEMA	\$1.25

Packed three in a box.

Screw Pitch Gauges

Designed for quickly and positively determining the pitch of screw threads. The teeth milled on the thin blades are the exact profile of a standard screw thread, each leaf being numbered with its own particular pitch. To determine the pitch of a screw try successive leaves of the gauge until the one is found which meshes perfectly with the thread. The pitch can then be read directly from the leaf.

The leaves are shaped so that they can be inserted into tapped holes for gauging internal threads as well as external. The leaves not in use can be folded into the handle.



No. 135 has 22 pitches for V-threads, as follows: 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, and 40. Length of leaves, 1 inch.

No. 436 has 30 pitches for V-threads, as follows: 4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42. Length of leaves, 1½ inches.

	No. Leaves	Length Leaves	Code	Price Each
No. 135	22	1 inch	YECUD	\$1.00
No. 436	30	1½ inches	YOLVO	1.25

Packed one in a box, 12 or 50 boxes in a carton.

No. 315 Screw Pitch Gauge

✓ NEW

AUTOMOTIVE & AVIATION
SCREW PITCH GAUGE

RANGE	
NF or SAE Bolts, Nuts	Standard Pipe Threads
¼"-28	½"-27
5/16"-24	¾"-18
3/8"-24	¾"-18
7/16"-20	¾"-14
1"-20	¾"-14
5/16"-18	¾"-11½
5/8"-18	1"-11½
¾"-16	1½"-11½
7/8"-14	1½"-11½
1"-14	2"-11½

GOODELL PRATT
No. 315
GOODELL PRATT CO.
GREENFIELD, MASS., U.S.A.

Price

Made in U.S.A. by MILLERS FALLS COMPANY, Greenfield, Massachusetts

DETERMINES PITCHES QUICKLY AND POSITIVELY
ON BOLTS AND NUTS, PIPE AND FITTINGS

A popular priced gauge with eight leaves, covering all National Fine (NF) or SAE threads from ¼ inch-28 to 1 inch-14 and Standard Pipe threads from ½ inch-27 to 2 inches-11½. In other words, all the standard threads both NF or SAE and Pipe used in the automotive and aviation fields.

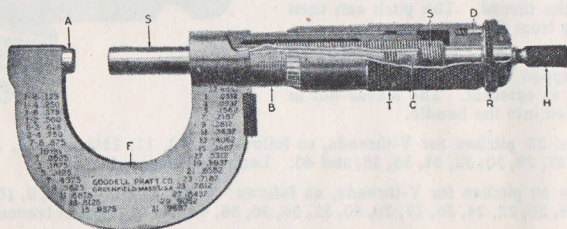
Each gauge mounted on a card printed in red and black as illustrated.

No. 315	Price Each
	\$0.35

Packed six in a box.

Micrometer Calipers

The micrometer is the precision tool in most general use where measurements in thousandths or even 1/10000 of an inch are necessary. They are made in many styles and capacities for outside, inside, and depth measurements. While their construction is comparatively simple, the utmost care must be used in every step of their manufacture if extreme accuracy and dependability are to be secured. Adjustments for wear must be provided so that the accuracy of the instrument can be maintained.



The Frame

The frames (F) are steel forgings of good proportions and designed to secure the strength and rigidity that is essential. In the larger and a few of the smaller sizes the frames are forged in I beam form to secure rigidity without undue weight.

The Barrel

The barrel (B) carries the threaded steel bushing in which the micrometer or lead screw runs and is part of the forged frame. The threaded bushing has an adjustable collar for taking up any wear at this point. One inch divided into 40ths is graduated on the barrel, each graduation representing one revolution of the lead screw.

The Spindle and Lead Screw

The spindle and lead screw (S) in all Goodell-Pratt micrometers is made of one solid piece of very fine tool steel. It is accurately machined and then allowed to season for months before the final precision machining and finishing is done. This precaution is taken to avoid shrinkage of the finished screw and spindle. All machine operations are within extreme precision limits on machines specially developed and perfected for the purpose.

The Anvil

The anvil (A) is set in the frame in perfect alignment with the spindle. The faces of both the anvil and spindle are lapped with the utmost care so that they are at right angles to their axis and parallel to each other. Proper adjustment for wear of the anvil is provided.

The Thimble

The thimble (T) is rigidly fixed to the lead screw and spindle and fits down over the barrel but does not touch it. The slightest turn of the thimble results in a similar movement of the lead screw. The beveled end of the thimble is graduated into 25 equal divisions.

Ratchet Stop

The G-P ratchet stop (R) mechanism can be easily operated by the thumb and forefinger of the same hand that holds the micrometer. This leaves one hand entirely free for holding the work to be "miked." This new departure from the old practice of combining the ratchet stop

with the speeder at the end of the thimble has proven very popular because it is both convenient and speeds up work. The tension in the ratchet mechanism is nicely adjusted so that when the knurled ratchet ring is turned it ratchets when just the right amount of pressure is exerted on the spindle to give accurate readings. The ratchet stop insures uniformly accurate reading as it entirely eliminates the personal equation.

The Speeder

A knurled handle (H) of small diameter, provided on many sizes, is fixed to the end of the thimble. By turning this speeder between the thumb and forefinger the spindle can be run in or out very rapidly as required.

Spindle Lock

A spindle lock (L) is provided on many sizes. This lock is controlled by turning a knurled nut located on the frame directly under the barrel. A slight turn of the nut locks the spindle securely, preserving the setting at any desired point. The No. 112 R micrometer has the lock nut located directly on the spindle where it runs through the frame.

Accuracy, Workmanship and Finish

The extreme care with which Goodell-Pratt micrometers are made, the special precision machinery used, the highly skilled craftsmen employed, and the pride we take in our product, permit us to recommend and unconditionally guarantee the accuracy, workmanship and finish of this fine line, no matter how exacting the requirements may be.

How to Read a Micrometer

To the frame (F) is immovably fixed the barrel (B). On the inside of this barrel is a very accurately threaded bushing with a pitch of 40 threads per inch. The hidden portion of the spindle (S) is also threaded with 40 threads per inch and runs in the nut formed by the barrel (B).

The extreme right end of the spindle (S) is securely fastened to the thimble (T). These are the only moving parts and they move in unison.

An inch of the line on the barrel (B) parallel to its axis is graduated into 40 equal parts corresponding exactly to the threads per inch on the screw of the spindle (S). When the thimble (T) is given one complete rotation the spindle must move just one graduation, or $1/40$ of an inch, which is $25/1000$ of an inch. The beveled edge of the thimble (T) is divided into 25 equal graduations; each of these must, therefore, represent $1/25$ of $1/40$ of an inch, or $1/1000$ of an inch. The instrument is so graduated and adjusted that when the face of the spindle (S) just touches the fixed anvil (A) the 0 graduation on the thimble (T) exactly coincides with the 0 graduation on the barrel (B).

To get the measurement between the fixed anvil (A) and the face of the spindle (S), multiply the number of divisions visible on the barrel (B) by 25 and add the number of divisions on the thimble (T) from 0 to the graduation opposite the longitudinal line on the barrel (B).

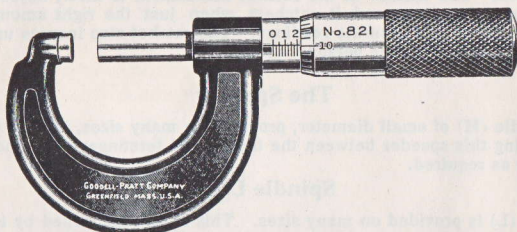
To facilitate reading, every fourth graduation on the barrel (B) is numbered 1, 2, 3, 4, etc., the figure representing respectively 0, .100", .200", .300", .400", etc. For the same reason every fifth division on the thimble graduation is numbered.

Reading Ten-Thousandths Micrometers

Micrometers that read to one ten-thousandths of an inch have exactly the same graduations as those reading to one-thousandths, with the addition of a vernier reading to $1/10$ of the $1/1000$ graduations.

There are ten vernier divisions which run the entire length of the barrel (B) and are numbered on the top of the frame, as shown in the cut of the No. 902. These ten vernier divisions correspond exactly to nine of the divisions on the thimble (T). So that the number opposite the line on the vernier that exactly corresponds with a line on the thimble graduations gives the number of ten-thousandths of an inch the micrometer has been opened beyond the last .001 inch graduation.

Micrometer Calipers



Range 0 to 1" Black Enameled Frames

The same fine workmanship and dependable accuracy characterize these black enamel steel frame micrometers. The shape of the frame at the anvil is so designed that measurements can be made in slots, over shoulders, etc.

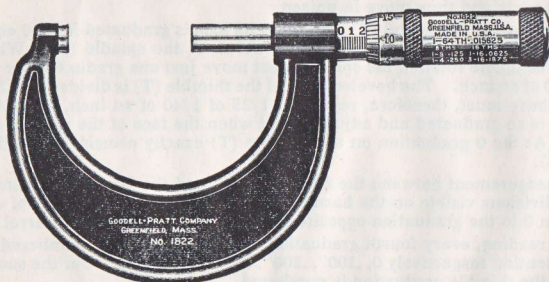
Measures by 1/1000 of an inch from 0 to 1 inch. Decimal equivalents are marked on the thimble. Quick, positive adjustment for wear provided.

No. 1821 is exactly the same as No. 821 illustrated, except that it is equipped with a thimble with decimal equivalents stamped on it, as shown on No. 1822 below.

	Capacity	Code	Price Each
No. 821	0 to 1 inch	ZEKBO	\$5.75
No. 1821	0 to 1 inch	ZOCUM	6.25
Case		WYDDA	1.25

Packed one in a box.

Micrometer Calipers



Range 1" to 2" Black Enameled Frames

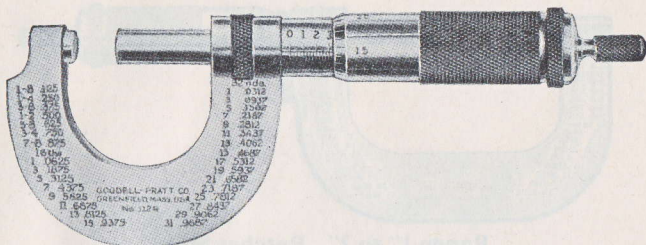
Graduated to read by 1/1000 inch from 1 to 2 inches either lengths or diameters. The frame is forged steel, nicely black enameled. The shape of the frame at the anvil permits measurements in slots, over shoulders, etc., otherwise not possible. Quick, positive adjustment for wear provided.

No. 822 is exactly the same as No. 1822 illustrated, but without decimal equivalents, as shown on No. 821.

	Capacity	Code	Price Each
No. 822	1 to 2 inches	ZEKBY	\$6.50
No. 1822	1 to 2 inches	ZOCUT	7.00
Case		WYUSY	1.60

Packed one in a box.

No. 112R Micrometer



Range 0 to 1" Cut-away Frame Ratchet Stop

This micrometer embodies more desirable refinements than any micrometer made. The frame is cut away on the anvil side allowing measurements to be taken, impossible with the regular style frame. It is equipped with a ratchet stop located on the thimble.

A clamp ring set in the frame locks the spindle at any desired point. A speeder is provided on the end of the thimble for running the spindle in or out rapidly. Every necessary compensation for wear is provided.

Measures by 1/1000 of an inch from 0 to 1 inch. Decimal equivalents etched on the drop-forged steel frame.

No. 112R
Case

Capacity
0 to 1 inch

Code
YAZTU
WYDDA

Price Each
\$10.00
1.25

No. 902R Micrometer Caliper

Range 0 to 1" by One Ten-Thousandths of an Inch

Same as No. 112R above, but reading by 1/10000 from 0 to 1 inch. The ratchet stop insures uniform and accurate readings. Frame etched with decimal equivalents. Equipped with spindle lock nut and speeder at end of the thimble.

Measures by 1/10000 from 0 to 1 inch.

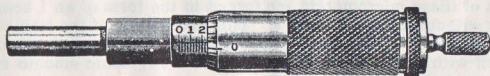
No. 902R
Case

Capacity
0 to 1 inch

Code
ZIABX
WYDDA

Price Each
\$11.75
1.25

No. 38R Micrometer Head



Range 0 to 1" by Thousandths of an Inch

For use on special gauges, fixtures and machines where close measurements are required. They afford an easy means of securing precision measurements and adjustments. The spindle and lead screw, barrel and thimble are the same carefully made and tested parts as used in our No. 112R Micrometer. Graduated to read by 1/1000 inch from 0 to 1 inch. Equipped with ratchet stop and speeder.

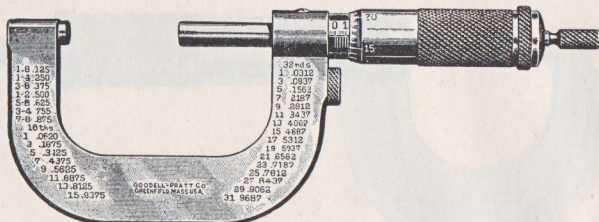
No. 38R

Capacity
0 to 1 inch
Packed one in a box.

Code
YADAB

Price Each
\$5.50

No. 20R Micrometer Caliper



Range 1" to 2" Ratchet Stop

This micrometer is graduated to read by 1/1000 inch from 1 to 2 inches, either lengths or diameters. Decimal equivalents are etched on the frame, which is drop-forged from a solid steel bar. A locking device is provided to hold the spindle in any desired position. Every necessary compensation for wear is provided. Same smooth ratchet mechanism and speeder as on other sizes.

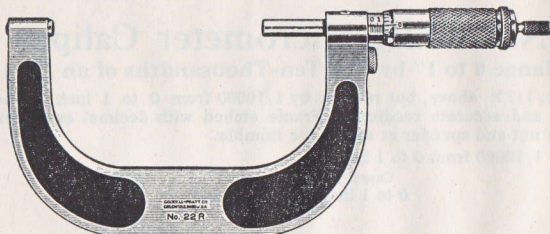
No. 20R
Case

Capacity
1 to 2 inches

Code
WYUHM
WYUSY

Price Each
\$11.00
1.60

Micrometer Calipers



Ranges up to 6" by Thousandths of an Inch

The steel frames of these micrometers are forged in the form of an I beam to give it ample strength and rigidity without too much weight. The web portion of the frame is black enameled and the edges nicely polished. They are graduated to read by 1/1000 of an inch either lengths or diameters. Provided with both lock nut and speeder. The same smooth ratchet mechanism is used on these larger sizes.

No. 21R
Case for 21R
No. 22R
Case for 22R
No. 23R
Case for 23R
No. 24R
Case for 24R

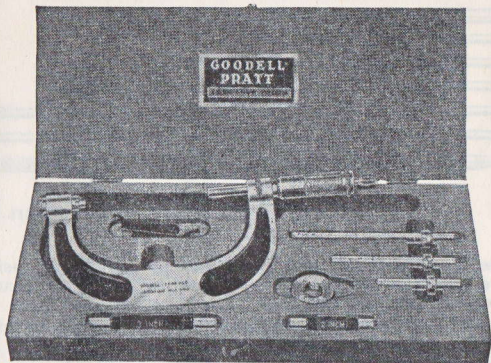
Capacity
2 to 3 inches
3 to 4 inches
4 to 5 inches
5 to 6 inches

Code
WYOWO
WYNRO
WYUWO
WYVUB
WYVZO
WYPIR
WYWYE
WYPIR

Price Each
\$10.50
3.00
11.35
3.50
12.40
4.60
13.40
4.60

Packed one in a box.

No. 204R Micrometer Set



✓
NEW

Range 0 to 4" Ratchet Stop Standards

The guaranteed accuracy of this micrometer by 1/1000 of an inch from 0 to 4 inches gives it a wide range of usefulness. Covering, as it does, the complete range of cylinders, pistons, and crankshafts used in automotive and aviation units, it is particularly adapted to these fields.

The four anvils are easily interchangeable and their accuracy can be quickly checked by means of the three standards furnished for the purpose.

The micrometer is equipped with spindle lock, speeder and ratchet stop. Every necessary adjustment for wear provided.

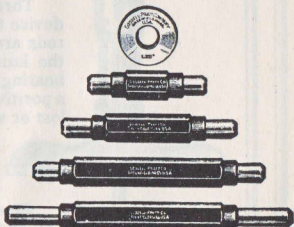
Each set, the micrometer, four anvils, three standards and two wrenches packed in the beautiful solid mahogany case illustrated above. Weight of case complete, 2¼ pounds.

No. 204R	Set Complete	Capacity 0 to 4 inches	Code YEMOX	Price per Set \$22.25
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No. 563 Micrometer Standards

These standards are made of tool steel, hardened and ground. The ends are lapped parallel, which makes them easier to use in setting or testing a micrometer, and more accurate than when lapped spherical. The rods are provided with hard rubber holders in order that they may not be affected by the heat of the hand. These holders are octagon in shape so that they will not roll.

One-inch standards are round discs, all other sizes are 5/16-inch rods with rubber holders.

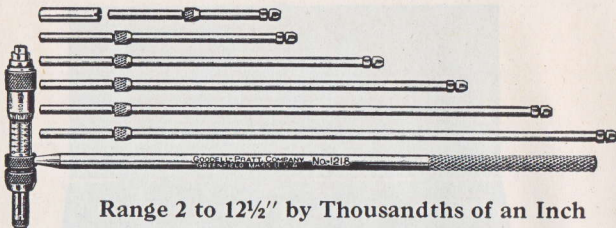


	Capacity	Code	Price Each		Capacity	Code	Price Each
No. 563	1-inch disc	YUJUZ	\$1.50	No. 563	4-inch rod	YUKAV	\$2.50
No. 563	2-inch rod	YUJVE	2.00	No. 563	5-inch rod	YUKCY	2.75
No. 563	3-inch rod	YUJYO	2.25	No. 563	6-inch rod	YUKEP	3.00

Packed one in a box.



No. 1218 Inside Micrometer



Range 2 to 12½" by Thousandths of an Inch

The lead screw is precisely cut and has a ½-inch run. Seven easily interchangeable measuring rods are furnished and two hardened steel collars, ½ and 1 inch in length, which can be slipped over the shank of any rod.

Two sets of graduations permit direct readings with or without the collars.

Shoulder on each rod comes to a positive seat against the end of the chuck. This does away with the possibility of dirt collecting inside of the chuck and preventing the rods from seating properly. Wear of the rods compensated for by loosening the binding nut and adjusting the hardened steel anvil in the end of each rod.

Each micrometer is furnished with a long handle for use in places that cannot be reached with the hand.

No. 1218 with Handle	Capacity	Code	Price Each
Leather case	2 to 12½ inches	ZISTA	\$8.25
		ZISTO	2.75

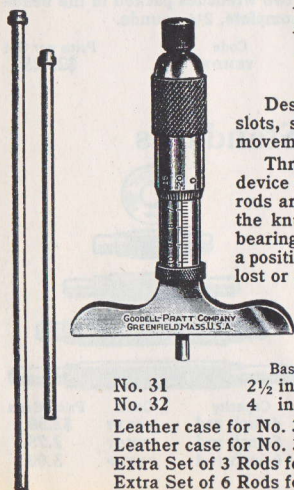
Micrometer Depth Gauges

Range 0 to 3" by Thousandths of an Inch

Designed to make accurate measurements of the depth of holes, slots, shoulders, and projections. The spindle has a full one-inch movement, and is graduated to read by 1/1000 inch.

Three measuring rods with hardened ends, carrying an adjusting device to compensate for wear, give a capacity of 0 to 3 inches. The rods are inserted through a hole in the measuring screw by removing the knurled end nut of the spindle. They are brought to a positive bearing against a finished seat on the end of the screw. This gives a positive end contact that does not depend on any device liable to be lost or worn, and without rods projecting above the top of the thimble.

The base is 1½/32 inch wide, hardened, ground and accurately hand-lapped at right angles to the rods.



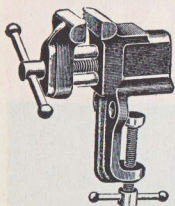
No.	Base	Capacity	Code	Price Each
No. 31	2½ inches	0 to 3 inches	YAALC	\$9.00
No. 32	4 inches	0 to 3 inches	YAAWN	11.50
Leather case for No. 31				1.65
Leather case for No. 32				2.00
Extra Set of 3 Rods for measurements 3 to 6 inches				2.90
Extra Set of 6 Rods for measurements 6 to 12 inches				8.35

M-S LINE



The Mohawk-Shelburne Line

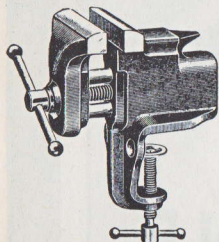
No. 15 M-S Vise



A small vise of the well known twin guide rod construction which, with the clean-cut screw, gives smooth action and rigidity. Jaws meet squarely. Clamps to bench up to 2 inches thick. Machined jaws 1½ inches wide. Body casting finished in red and movable jaw casting in black enamel.

	Jaws	Weight	Price Each
No. 15	1½ inches	2½ lbs.	\$1.00
	Packed one in a box.		

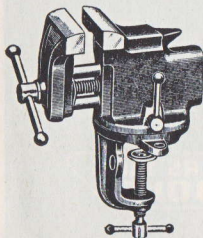
No. 1700 M-S Vise



A strong, rigid vise with machined jaws 2½ inches wide that open 2¼ inches. Jaws meet squarely. Twin steel guide rod construction. Small anvil on body casting. Body finished in red, movable jaw in black enamel. Clamps to bench up to 2 inches thick.

	Jaws	Weight	Price Each
No. 1700	2½ inches	3½ lbs.	\$1.40
	Packed one in a box.		

No. 18 M-S Swivel Vise

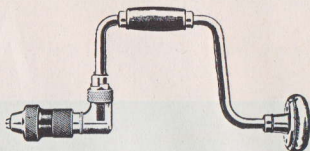


Equipped with swivel base so vise can be swung to any desired angle, and locked by means of the lever at right. Twin steel guide rod construction. Machined jaws 2½ inches wide opening 2¼ inches. Jaws meet squarely. Clamps to bench up to 2 inches thick.

Body casting finished in red; movable jaw in black enamel.

	Jaws	Weight	Price Each
No. 18	2½ inches	4½ lbs.	\$1.80
	Packed one in a box.		

Mohawk-Shelburne Bit Brace



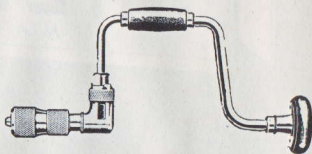
A beautiful new leader that is sure to establish itself as an outstanding favorite. Never before has such sturdy construction and fine finish been put into a brace at anywhere near the price at which this is offered.

The chuck is the well-known ball bearing Lion pattern equipped with forged steel jaws that hold square, ⅛ to ½ inch round, and No. 1 M. T. shanks. The ratchet mechanism is of the boxed type with ring shift control. The 10-inch sweep is made of full ½ inch round steel. Ball bearing, steel-clad head. Handles walnut finished hardwood. Sweep handles reinforced with inserted metal rings.

Entire tool beautifully polished, nickel plated and buffed except chuck shell and dogs, which have a gun metal finish, contrasting pleasingly with the rest of the tool.

	Sweep	Weight	Price Each
No. 1910	10 inches	3¼ lbs.	\$4.50
	Packed two in a box.		

Mohawk-Shelburne Bit Brace



An outstanding value combining rugged construction, beautiful finish and proved design.

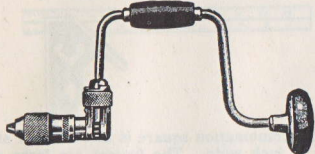
The chuck with a heavy knurled shell is equipped with forged steel alligator jaws for holding regular square bit shanks. The ratchet mechanism is boxed and controlled by a ring shifter. The 10-inch sweep is full ½ inch round steel. Steel-clad, ball bearing head. Sweep handle is reinforced with inserted metal rings.

Entire tool nicely polished, nickel plated and buffed except the ratchet dogs, which have a gun metal finish.

	Sweep	Weight	Price Each
No. 1810	10 inches	3 lbs.	\$3.85
	Packed two in a box.		

The Mohawk-Shelburne Line

No. 1710 M-S Brace

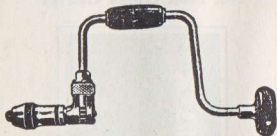


A new brace equipped with a Barber chuck with alligator jaws and semi-boxed steel ratchet. Knurled shifter ring controls ratchet mechanism. Steel clad, ball bearing head made of hardwood, nicely finished in mahogany lacquer. Hardwood sweep handle finished in same manner. All exposed metal parts nicely polished, nickeled and buffed.

	Sweep	Weight	Price
No. 1710	10 inches	2½ lbs.	per Doz.
			\$28.45

Packed one-half dozen in a box.

Nos. 1410-1610 M-S Brace



A serviceable brace representing a big value. Equipped with Barber chuck with malleable alligator jaws and a sturdy semi-boxed ratchet. Knurled shifter ring finished in red enamel. Handles mahogany stained hardwood. Stained hardwood head screwed on and locked with two wood screws.

	Sweep	Weight	Price
No. 1410 Polished	10 inches	2½ lbs.	per Doz.
			\$12.65
No. 1610 Nickeled	10 inches	2½ lbs.	per Doz.
			15.15

Packed one-half dozen in a box.

No. 412 M-S Auger Bits

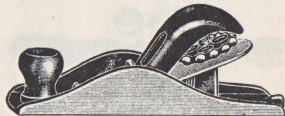


Solid center pattern well forged and finished, with sharp lips, spurs and screws. Nicely finished with square shanks red enameled. Average weight per dozen, 1¾ lbs.

No.	Size	Price per Doz.	No.	Size	Price per Doz.
412	¼ inch	\$4.00	412	11/16 inch	\$7.00
412	5/16 inch	4.00	412	12/16 inch	7.00
412	¾ inch	4.00	412	13/16 inch	8.00
412	7/16 inch	4.50	412	14/16 inch	8.00
412	5/8 inch	5.00	412	15/16 inch	9.00
412	9/16 inch	5.50	412	16/16 inch	9.00
412	10/16 inch	6.00			

Packed one dozen of a size in a box.

No. 700 M-S Block Plane

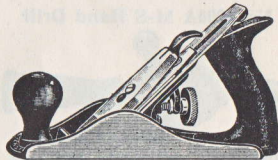


Bottom a fine gray iron casting. Bottom and sides milled and polished. Inside black enameled. Plane iron of good quality steel, carefully hardened and tempered. Knob handle hardwood with black lacquer finish. Top half of clamp lever handle red enameled. Nickel-plated clamp screw.

	Length	Cutter	Weight	Price
No. 700	7 inches	1½ inches	1½ lbs.	Each
				\$0.65

Packed one in a box.

No. 900 M-S Smooth Plane

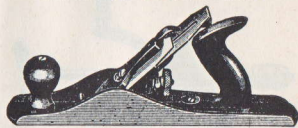


Bottom and frog fine gray iron castings. Bottom and sides milled and polished. Inside black enameled. Plane iron of good quality steel, carefully hardened and tempered. Lever side adjustment of cutter. Screw end adjustment of cutter. Clamp lever handle red. Hardwood handle and knob with black lacquer finish.

	Length	Cutter	Weight	Price
No. 900	9 inches	2 inches	3¾ lbs.	Each
				\$1.90

Packed one in a box.

No. 814 M-S Jack Plane



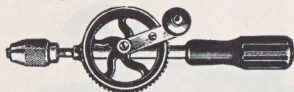
Bottom and frog of fine gray iron castings. Bottom and sides milled and polished. Inside black enameled. Plane iron of good quality steel, carefully hardened and tempered. Lever side adjustment and screw depth adjustment of cutter. Hardwood handle and knob with black lacquer finish. Clamp lever handle finished in red.

	Length	Cutter	Weight	Price
No. 814	14 inches	2 inches	4¼ lbs.	Each
				\$2.20

Packed one in a box.

The Mohawk-Shelburne Line

No. 2500 M-S Hand Drill

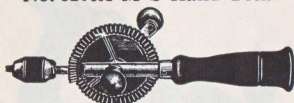


Single Speed Capacity 0 to 1/4 Inch

There is a wealth of satisfactory service built into these hand drills. Solid steel frames, single speed, cut gears and equipped with three-jawed chucks that hold 0 to 1/4 inch round shanks. Large gear, red enameled. Handles mahogany finished hardwood. End handle equipped with nickel-plated ferrule.

	Length	Weight	Price Each
No. 2500	10 3/4 inches	1 lb.	\$1.00
Packed one in a box.			

No. 3200A M-S Hand Drill

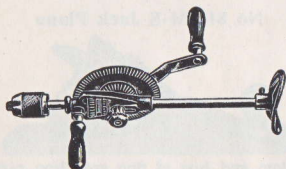


Single Speed Capacity 0 to 1/4 Inch

A substantial, serviceable drill built on a solid steel frame. All-steel chuck has three jaws holding 0 to 1/4 inch round shank drills. Large gear finished in glossy red enamel with polished rim. Large hollow-end handle with screw cap. End, side and crank handles made of mahogany finished hardwood.

	Length	Weight	Price Each
No. 3200A	11 inches	1 1/8 lbs.	\$1.20

No. 7740 M-S Breast Drill



Two Speed Capacity 0 to 1/2 Inch

A sturdy, dependable, two-speed drill with a three-jawed steel chuck holding 0 to 1/2 inch round shanks. Machine cut gears; two steel pinions; quick, positive gear shift; frame black enameled; large gear red; handles mahogany finished hardwood.

	Length	Weight	Price Each
No. 7740	16 1/2 inches	4 3/4 lbs.	\$2.65

Packed one in a box.

M-S Combination Squares

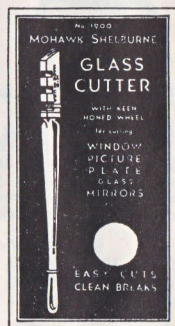


This combination square is fitted with a steel blade, 1 inch wide. The figures are large and clear and the graduation lines deeply etched, not stamped. Graduated on one side in 8ths and 16ths, and 16ths and 32nds on the other. The beam is 4 inches long, black enameled, except for the bearing surfaces which are carefully machined. The beam is equipped with a cat's-eye level and a scriber. Knurled clamp nut finished in red enamel.

	Length blade	Weight	Price Each
No. 9500	9 inches	13 ozs.	\$1.15
No. 1200	12 inches	15 ozs.	1.20

Packed one in a box.

No. 1900 Glass Cutter



Without doubt the finest glass cutter ever offered to sell at the price. The frame is die cast from an alloy of ample strength for every requirement. The three breaker notches are clean cut and unusually effective. The frame and handle are clean and nicely shaped. The head has a silvered finish, while the handle is finished in glossy bright red lacquer.

The wheel is made of fine quality steel, carefully heat-treated and honed. Its performance is unusual in a cutter at this price.

Each cutter mounted on a two-tone green display card that sets off the fine finish of the cutter to good advantage.

	Weight per Box	Price per Dozen
No. 1900	1 lb.	\$1.30

Packed one dozen in a box.

The Mohawk-Shelburne Line

No. 10 M-S Awl

Fitted with a 2 $\frac{5}{8}$ -inch carefully tapered, pointed and polished steel blade set in a hardwood handle attractively finished in red and black lacquer. Ferrule nickel plated.

	Blade	Weight per Doz.	Price per Doz.
No. 10	2 $\frac{5}{8}$ inches	14 ozs.	\$1.50

Packed one dozen in a box.

M-S Nail Sets



The head of this set is square, while the body is round and knurled to give a good grip. The points are carefully machined and well cupped. Hardened and tempered points and heads for hard service. Blue finish. Made in four sizes: $\frac{1}{32}$ inch, $\frac{2}{32}$ inch, $\frac{3}{32}$ inch and $\frac{4}{32}$ inch.

	Size	Weight per Doz.	Price per Doz.
No. 711	$\frac{1}{32}$ inch	1 lb.	\$1.00
No. 712	$\frac{2}{32}$ inch	1 lb.	1.00
No. 713	$\frac{3}{32}$ inch	1 lb.	1.00
No. 714	$\frac{4}{32}$ inch	1 lb.	1.00
No. 1712	Assorted	1 lb.	1.00

Packed one dozen in a box.

No. 1800 M-S Saw Set

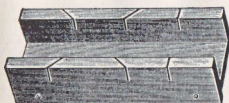


The frame of this tool is of the pistol-grip type, nicely finished in red and black enamel. The set and anvil are hardened and tempered steel. Anvil adjustable. Saw teeth always in full view.

	Length	Weight	Price Each
No. 1800	5 $\frac{7}{8}$ inches	$\frac{5}{8}$ lb.	\$1.30

Packed one in a box.

No. 12 M-S Mitre Box



of hardwood with front lip to lock overedge of bench.

	Width Cut	Length Overall	Weight	Price Each
No. 12	3 inches	12 inches	1 $\frac{1}{8}$ lbs.	\$0.60

Packed six in a carton.

No. 7777 M-S Screw Drivers



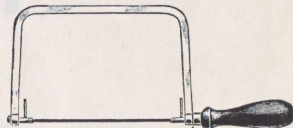
A strong, durable screw driver made in the four most salable lengths. Blade of specially tough, hammer-forged steel, hardened and tempered its entire length. Forged lugs on shank prevent turning in handle. Heavy nickel-plated steel ferrule. Hardwood handle with black lacquer finish with red end. Blades nickel plated and burnished.

	Length Blade	Price per Doz.
No. 7777	3 inches	\$2.15
No. 7777	4 inches	2.40
No. 7777	5 inches	2.90
No. 7777	6 inches	2.90
No. 7777	8 inches	4.00

Packed one dozen of a size in a box.

No. 1400 M-S Coping Saw

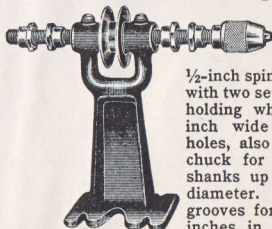
A rigid, durable frame of stiff, flat spring steel. The blade is controlled by pins in the studs at either end, making it unnecessary to remove blade when changing direction of cut. Blades strained by turning the mahogany finished hardwood handle. Frame nickel plated and burnished.



	Throat	Weight	Price Each
No. 1400	4 $\frac{3}{4}$ inches	6 ozs.	\$0.60

Packed six in a box.

No. 501 M-S Polishing Head



A big value in a small machine. The $\frac{1}{2}$ -inch spindle is equipped with two sets of flanges for holding wheels up to $\frac{3}{4}$ inch wide with $\frac{1}{2}$ -inch holes, also a three-jawed chuck for holding round shanks up to $\frac{1}{4}$ inch in diameter. Pulley with two grooves for V belt is $1\frac{3}{4}$ inches in diameter. Oil holes with brass plugs provided. Base black and pulley red enameled.

	Height Overall	Weight	Price Each
No. 501	6 $\frac{3}{4}$ inches	2 $\frac{1}{4}$ lbs.	\$1.70

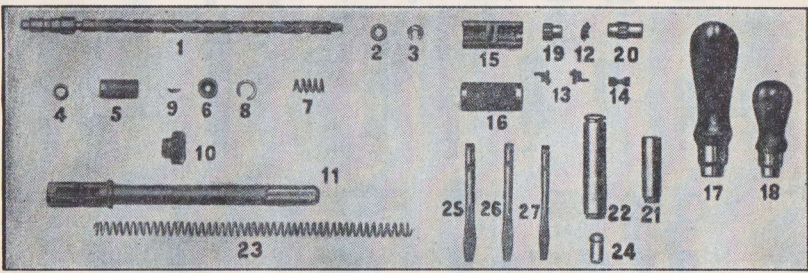
Packed one in a box.

REPAIR

PARTS

Parts for Spiral Ratchet Screw Drivers

Nos. 61-62-67 and Nos. 610-620-670

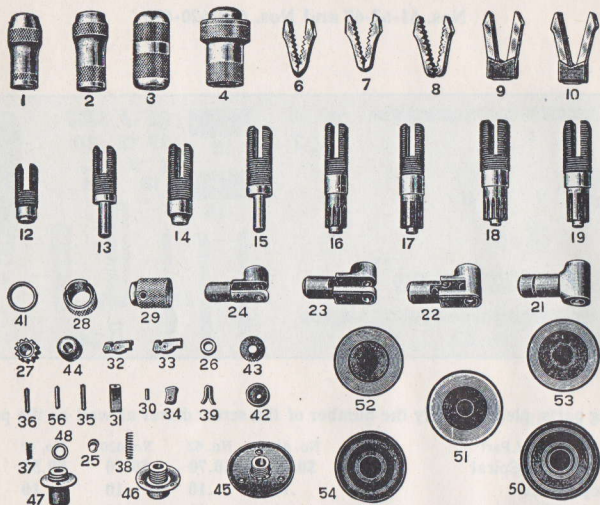


In ordering parts, please specify the number of the screw driver as well as the part number.

No.	Name of Part	No. 61	No. 610	No. 62	No. 620	No. 67	No. 670
1	Chuck and Spiral	\$0.60	\$0.60	\$0.70	\$0.70	\$0.55	\$0.55
2	Stop Collar	.10	.10	.10	.10	.10	.10
3	Stop Collar Washer	.10	.10	.10	.10	.10	.10
4	Chuck Collar	.10	.10	.10	.10	.10	.10
5	Chuck Shell	.15	.15	.15	.15	.15	.15
6	Chuck Cam	.10	.10	.10	.10	.10	.10
7	Chuck Spring	.10	.10	.10	.10	.10	.10
8	Stop Ring	.10	.10	.10	.10	.10	.10
9	Blade Key	.10	.10	.10	.10	.10	.10
10	Lock Cam, complete	.50	.50	.50	.50	.30	.30
11	Frame, complete	1.00	1.00	1.50	1.50	.80	.80
12	Ratchet Key	.10	.10	.10	.10	.10	.10
13	Pawls (2)	.20	.20	.20	.20	.20	.20
14	Pawl Springs	.10	.10	.10	.10	.10	.10
15	Cam	.10	.10	.20	.20	.15	.15
16	Shifter Sleeve	.20	.20	.30	.30	.15	.15
17	Handle and Ferrule	.35	.35	.40	.40		
18	Handle and Ferrule					.35	.35
19	R. H. Nut	.35	.35	.35	.35	.30	.30
20	L. H. Nut	.35	.35	.35	.35	.30	.30
21	Cell		.20				.15
22	Cell and Cap				.35		
23	Spring		.10		.10		.10
24	Spring Step		.10		.10		.10
25	Large Blade	.20	.20	.30	.30	.15	.15
26	Medium Blade	.20	.20	.30	.30	.15	.15
27	Small Blade	.20	.20	.30	.30	.15	.15



Parts for Braces



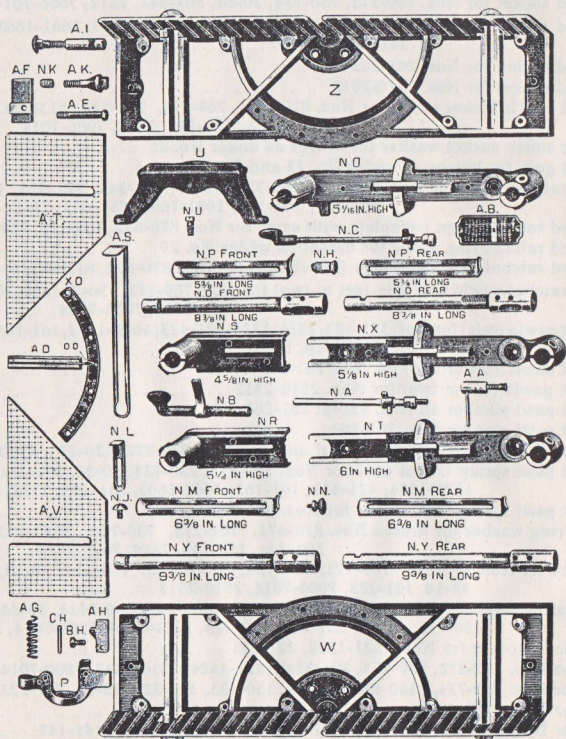
When ordering parts, the number of the brace for which they are wanted should be specified, as well as the number of the part. If this information is not available make a sketch of the part showing dimensions.

No.		Each
1	Shell for Nos. 141-143, 161-163, 1410	\$0.40
1	Shell for Nos. 261-263	.35
1	Shell for Nos. 1661-1663, 1610	.45
2	Shell for Nos. 631-633	.40
2	Shell for Nos. 30-34, 30A-34A, 131-133, 12-14, 7006-7014	.60
2	Shell for Nos. 321-323, 1321-1324, 421-423, 221-223, 1710	.55
3	Shell for Nos. 730-734, 8130-8133	.60
4	Shell for Nos. 870-872, 769-733, 7312, 2510-2512	2.00
6	Jaws for Nos. 141-143, 161-163, 631-633, 261-263, 1410	Pair .10
6P	Jaws for Nos. 1610, 1661-1663	.20
7	Jaws for Nos. 421-423	.30
8	Jaws for Nos. 30-34, 30A-34A, 131-133, 321-323, 1321-1324, 12-14, 221-223, 1710, 7006-7014	.60
9	Jaws for Nos. 730-734, 8130-8133, 2510-2512	.60
10	Jaws for Nos. 870-872, 769-773, 7312	.65
12	Chuck socket for Nos. 141-143	Each .15
13	Ratchet chuck socket for Nos. 161-163, 1661-1663, 261-263, 1410, 1610	.25
14	Chuck socket for Nos. 12-14, 221-223	.35
15	Ratchet chuck socket for Nos. 321-323, 1321-1324, 421-423, 631-633, 1710	.30

Parts for Braces

No.		Each
16	Ratchet chuck socket for Nos. 30-34, 30A-34A, 7006-7014	\$0.50
17	Ratchet chuck socket for Nos. 130-133	.50
18	Ratchet chuck socket for Nos. 769-773, 730-734, 7312	.55
18½	Ratchet chuck socket for Nos. 2510-2512	.80
19	Ratchet chuck socket for Nos. 8130-8133, 870-872	.80
21	Crooked socket for Nos. 131-133, 870-872, 8130-8133	.90
22	Crooked socket for Nos. 769-773, 730-734, 30-34, 30A-34A, 7312, 7006-7014	.70
23	Crooked socket for Nos. 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633, 1410, 1610, 1710	.75
24	Crooked socket for Nos. 261-263	.35
24½	Crooked socket for Nos. 2510-2512	1.00
25	Ratchet chuck socket screw for Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 7312, 7006-7014	.10
26	Ratchet chuck socket washer for braces as under No. 25	.10
27	Ratchet gear for braces as under No. 23 and No. 24	.10
28	Boxed ratchet rings for Nos. 769-773, 730-734, 30-34, 30A-34A, 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633, 7312, 7006-7014	.20
29	Enclosed ratchet rings (complete with cam) for Nos. 870-872, 130-133, 8130-8133	.25
30	Enclosed ratchet ring screw for braces as under No. 29	.10
31	Enclosed ratchet pawls and pins (set of two) for Nos. 870-872, 8130-8133, 130-133	.25
32	Boxed ratchet pawls and pins (set of two) for Nos. 769-773, 730-734, 30-34, 30A-34A, 7312, 7006-7014	.25
33	Ratchet pawls (pair) for Nos. 321-323, 1321-1324, 421-423, 1661-1663, 161-163, 631-633, 1410, 1610, 1710	.25
34	Ratchet pawls (set of two) for Nos. 261-263	.15
34½	Ratchet pawls (set of two) for Nos. 2510-2512	.15
35	Ratchet pawl pins for all Nos. except 261-263	.10
36	Ratchet pawl pins for Nos. 261-263	.10
37	Enclosed ratchet pawl springs (set of one) for Nos. 870-872, 130-133, 8130-8133	.10
38	Ratchet pawl spring (set of one) for Nos. 769-773, 730-734, 30-34, 30A-34A, 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633, 7312, 7006-7014	.10
39	Ratchet pawl spring (set of one) for Nos. 261-263	.10
41	Socket ring washer for braces Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 7312, 7006-7014	.10
42	Ball race for Nos. 870-872, 769-773, 730-734, 8130-8133, 130-133, 30-34, 30A-34A, 12-14, 321-323, 7006-7014, 2510-2512	.10
43	Ball bearing washer for Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 12-14, 221-223, 321-323, 1321-1324, 7006-7014, 2510-2512	.10
44	Anti-friction collar for Nos. 1321-1324, 221-223	.10
45	Quill for Nos. 870-872, 769-773, 30A-34A, 1321-1324, 2510-2512, 7006-7014, 1710	.35
46	Quill for Nos. 730-734, 8130-8133, 30-34, 130-133, 321-323, 12-14, 221-223	.35
46½	Quill for Nos. 1410, 1610	.35
47	Quill for Nos. 421-423, 161-163, 1661-1663, 631-633, 261-263, 141-143	.20
48	Quill washer for Nos. under 46 and No. 7312	.10
49	Quill washer for Nos. under 47 (not illustrated)	.10
50	Head for braces Nos. 870-872, 769-773, 30A-34A, 2510-2512	.55
51	Head for braces Nos. 730-734, 30-34, 8130-8133, 130-133, 12-14	.55
52	Head for braces Nos. 321-323, 221-223, 7006-7014	.25
53	Head for braces Nos. 161-163, 1661-1663, 261-263, 141-143, 1410, 1610	.20
54	Head for braces Nos. 1321-1324, 421-423, 1710	.25
56	Ratchet gear pin for braces as under Nos. 23 and 24	.10

Parts for Langdon Acme Mitre Boxes



Nos. 68-75 and 71A-75A

Parts for Langdon Acme Mitre Boxes

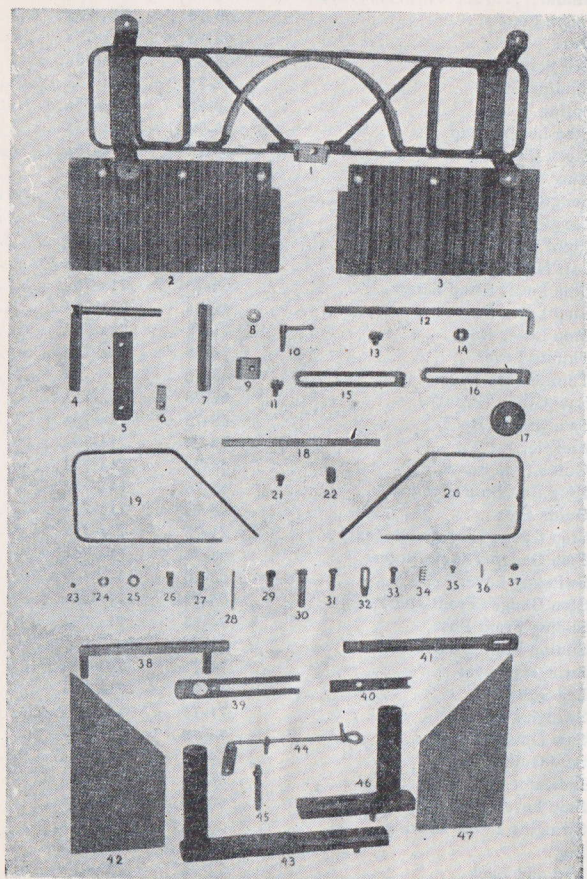
Nos. 68-75 and 71A-75A

		For Boxes Nos.	Each
AA	Binder.....	71-75 71A-75A.....	\$0.15
AB	Index Plate.....	68-75 71A-75A.....	.25
AD	Gib.....	68-75 71A-75A.....	.50
AE	Gib Screw.....	68-75 71A-75A.....	.10
AF	Binding Strap.....	68-75 71A-75A.....	.20
AG	Spring.....	68-75 71A-75A.....	.10
AH	Stop Lever Strap.....	68-75 71A-75A.....	.10
AI	Stock Rest.....	68-75 71A-75A.....	.30
AK	King Bolt.....	68-75 71A-75A.....	.15
AS	Length Gauge.....	68-75 .....	.30
A4	Length Gauge, complete.....	71A-75A.....	2.00
AT	Right Hand Bottom Board.....	68-75 71A-75A.....	.75
AV	Left Hand Bottom Board.....	68-75 71A-75A.....	.75
BH	Stop Lever Strap Screw.....	68-75 71A-75A.....	.10
CH	Stop Lever Pin.....	68-75 71A-75A.....	.10
NA	Stop Lever Rod.....	71-75 71A-75A.....	.35
NB	Thumb Lever.....	71-75 71A-75A.....	.50
NC	Thumb Stop Lever.....	68-70 .....	.50
ND	Saw Guide (Front).....	68-73 71A-75A.....	.95
ND	Saw Guide (Rear).....	68-73 71A-75A.....	.95
NH	Elevator.....	68-75 71A-75A.....	.50
NJ	Guide Stop Screw.....	68-75 71A-75A.....	.10
NK	King Bolt Stop Screw.....	68-75 71A-75A.....	.10
NL	Guide Stop.....	68-75 71A-75A.....	.10
NM	Stop Gauge (Front and Rear).....	74-75 71A-75A.....	.15
NN	Stop Gauge Thumb Screw.....	68-75 71A-75A.....	.20
NO	Swinging Lever.....	68-70	4.00
NP	Stop Gauge (Front and Rear).....	68-73 71A-75A.....	.15
NR	Sliding Front Post.....	74-75 71A-75A.....	1.30
NS	Sliding Front Post.....	71-73	1.25
NT	Swinging Lever.....	74-75 74A-75A.....	3.00
NU	Leg Screw.....	68-75 71A-75A.....	.10
NX	Swinging Lever.....	71-73 71A-73A.....	3.00
NY	Saw Guide (Front).....	74-75 74A-75A.....	.95
NY	Saw Guide (Rear).....	74-75 74A-75A.....	.95
OO	Indicator.....	68-75 71A-75A.....	.10
P	Stop Lever.....	68-75 71A-75A.....	.25
S5	Swinging Lever Bearing.....	71A-75A.....	.50
U	Leg.....	68-75 71A-75A.....	.50
W	Bed and Back.....	71-75 71A-75A.....	6.60
XO	Graduated Arc.....	68-75 71A-75A.....	.55
Z	Bed and Back.....	68-73	6.60

Parts NO, P, NR, NS, NT, U, W, NX and Z have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.



Parts for Goodell-Pratt All Steel Mitre Boxes



Nos. 1144, 1264, 1285, 1305 and 1306
 Nos. 1144A, 1264A, 1285A, 1305A and 1306A
 Nos. 1002, 1003 and 1004

Parts for Goodell-Pratt All Steel Mitre Boxes

No.	Name of Part	Each
1	Bed (with legs).....	\$3.00
2	Back—left hand.....	.50
3	Back—right hand.....	.50
4	Attachment Angle Slide.....	.55
5	Attachment End Block.....	.50
6	Attachment Block.....	.10
7	Attachment Length Gauge Slide.....	.50
8	Attachment Washer.....	.10
9	Attachment Clamp.....	.10
10	Attachment Binding Screw.....	.10
11	Attachment Knurled Screw.....	.10
12	Attachment Length Gauge.....	.20
13	Depth Gauge Knurled Screw.....	.30
14	Depth Gauge Bent Washer.....	.10
15	Front Depth Gauge.....	.30
16	Back Depth Gauge.....	.30
17	Ball Bearing, complete.....	.35
18	Scale and Escutcheon Pins.....	.90
19	Right Hand Riser.....	.15
20	Left Hand Riser.....	.15
21	Back Screw (also Gib Screw).....	.10
22	Guide Stop (Automatic Detent).....	.20
23	Copper Plug.....	.10
24	Nut for R. and L. Binder Screw.....	.10
25	Sliding Lever Binder Bolt Washer.....	.10
26	Boss Binder Screw ($\frac{1}{2}$ x $\frac{5}{16}$ inch—18 Sq. Hd.).....	.10
27	Catch Lever Pin.....	.10
28	Bottom Plate Pin.....	.10
29	Lever Screw ($\frac{5}{8}$ x $\frac{5}{16}$ inch—18 Fil. Hd.).....	.10
30	Boss Screw.....	.10
31	Attachment Block Screw (4) (1 x $\frac{1}{4}$ inch—20 R. H.).....	.10
32	Saw Stop (2).....	.10
33	Gib Screw ($\frac{3}{4}$ x $\frac{1}{4}$ inch—20 R. H. Mch.).....	.10
34	Catch Lever Spring.....	.15
35	Saw Stop Screw (2) ($\frac{5}{16}$ inch—10-32 R. H. Mch.).....	.10
36	Lever Pin.....	.10
37	Ball Cage, complete.....	.10
38	Gib (with Plugs and Brass Pin).....	.50
39	Catch Lever—large part.....	.20
40	Catch Lever—small part.....	.15
41	Saw Guide (give width of saw).....	1.50
42	Bottom Plate—left hand.....	.50
43	Swinging Lever, complete.....	4.00
44	Pull Rod, complete.....	.40
45	R. and L. Binding Screw.....	.20
46	Sliding Lever, complete.....	3.00
47	Bottom Plate—right hand.....	.50
	Complete Set End Attachments.....	3.00

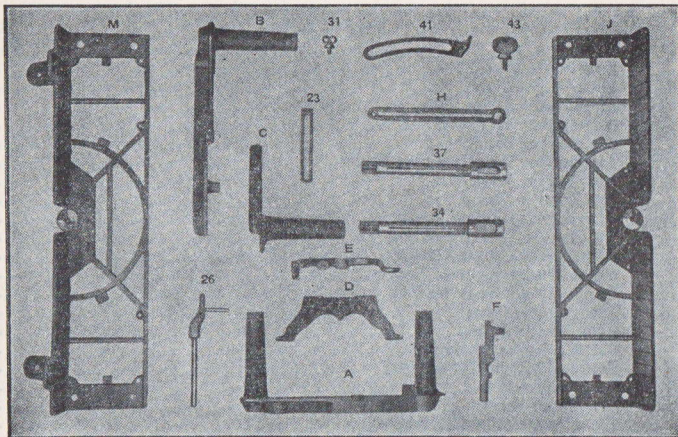
See Cut on Preceding Page

Parts for New Langdon Improved

Nos. 29, 32, 33 and 34

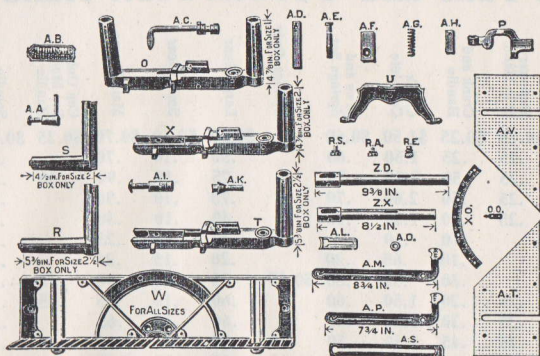
New Langdon Mitre Boxes

Nos. 17, 23 and 25



Part No.	New Langdon	Used on New Langdon Imp.	Name of Part	Price
A	Size 1	Size 1	Swinging Lever	\$2.10
B	Size 2	Size 2	Swinging Lever	1.50
C	Size 2	Size 2	Sliding Post	1.40
D	Size 1-2-2½	Size 1-2-2½	Legs	.25
E	Size 1	Size 1	Stop Lever	.45
F	Size 2-2½	Size 2-2½	Stop Lever	.45
H	Size 1-2-2½	Size 1-2-2½	Gib	.65
K	Size 2½	Size 2½	Sliding Post	1.45
J	Size 1-2	Size	Bed and Back	5.50
Y	Size 2½	Size	Bed and Back	6.00
M	Size	Size 1-2	Bed and Back	6.00
N	Size	Size 2½	Bed and Back	6.25
L	Size 2½	Size 2½	Swinging Lever	2.30
23	Size 1-2-2½	Size 1-2-2½	Stop Gauge (Front)	.10
26	Size 2-2½	Size 2-2½	Thumb Lever, complete	.25
31	Size 1-2-2½	Size 1-2-2½	Thumb Screw	.15
32	Size 1-2	Size 1-2	Stop Gauge (Rear)	.10
33	Size 2½	Size 2½	Stop Gauge (Rear)	.10
34	Size 1	Size 1	Front Guide	.85
35	Size 2	Size 2	Front Guide	.85
36	Size 2½	Size 2½	Front Guide	.85
37	Size 1-2	Size 1-2	Rear Guide	.85
38	Size 2½	Size 2½	Rear Guide	.85
39	Size 1-2	Size 1-2	Bottom Boards (Right or Left)	.60
40	Size 2½	Size 2½	Bottom Boards (Right or Left)	.60
41	Size	Size 1-2	Circular Arms (Right or Left)	.55
42	Size	Size 2½	Circular Arms (Right or Left)	.60
43	Size	Size 1-2-2½	Circular Arm Thumb Screws	.15

Parts for Old Style Langdon Acme Mitre Box



Part No.	Name of Part		Price
AA	Binder	for sizes 2 and 2½ box	\$0.15
AB	Index Plate	for all sizes of boxes	.20
AC	Thumb Stop Lever	for all sizes of boxes	.50
AD	Gib	for all sizes of boxes	.50
AE	Gib Screw	for all sizes of boxes	.10
AF	Binding Strap	for all sizes of boxes	.20
AG	Spring	for all sizes of boxes	.10
AH	Stop Lever Strap	for all sizes of boxes	.10
AI	Stock Rest	for all sizes of boxes	.20
AK	King Bolt	for all sizes of boxes	.15
AL	Guide Stop	for all sizes of boxes	.10
AM	Elevator Bar	for size 2½ box	.30
AO	Washer	for all sizes of boxes	.10
AP	Elevator Bar	for sizes 1 and 2 box	.30
AS	Length Gauge	for all sizes of boxes	.30
AT	Right Hand Bottom Board	for all sizes of boxes	.70
AV	Left Hand Bottom Board	for all sizes of boxes	.70
O	Swinging Lever	for size 1 box	4.00
OO	Indicator	for all sizes of boxes	.10
P	Stop Lever	for all sizes of boxes	.25
R	Sliding Front Post	for size 2½ box	1.30
RA	Guide Stop Screw—Rear	for all sizes of boxes	.10
RE	Elevator Stop Screw	for all sizes of boxes	.10
RS	Guide Stop Screw—Front	for sizes 2 and 2½ box	.10
S	Sliding Front Post	for size 2 box	1.40
T	Swinging Lever	for size 2½ box	2.70
U	Leg	for all sizes of boxes	.65
W	Bed and Back	for size 2½ box	6.60
X	Swinging Lever	for size 2 box	2.70
XO	Graduated Arc	for all sizes of boxes	.60
ZD	Saw Guide	for size 2½ box	1.00
ZX	Saw Guide	for sizes 1 and 2 box	1.00
Z	Bed and Back	for sizes 1 and 2 box	7.00

Parts O, P, R, S, T, U, W and X, have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.

Parts for Millers Falls and Goodell-Pratt Hand Drills

Number	Main Handle	Stationary Side Handle	Crank and Handle	Chuck Complete	Jaws and Springs Set	Springs Only	Large Gear	Small Gear	Main Frame	Cap Only For Main Handle	Spindle	Gear Clip	Clutch
1	\$0.65	\$0.25	\$0.25	\$1.50	\$0.60		\$0.50	\$0.10	\$0.70	\$0.25	\$0.20		
01	.25	.25	.25	1.50	.60		.50	.10	.70		.20		
2	1.00	.25	.50	2.00	.70		.75	.10	.90	.30	.25		
2 _B	.35	.25	.50	2.00	.70		.75	.10	.90		.25		
3	.55	.25	.20	1.50	.60		.40	.10	.30		.20		
4			.10	.10			.20	.15	.25		.10		
4 _D			.10	.65	.20		.20	.15	.25		.20		
4½	.80		.30	.80	.30	\$0.10	.35	.10	.40	.25	.10	\$0.10	
5	.65	.25	.20	1.50	.60		.60	.10	.65	.25	.20		
05	.25	.25	.20	1.50	.60		.60	.10	.65		.20		
5½	1.00	.25	.45	1.50	.50	.10	.85	.25	1.35	.30	.25	.10	\$0.20
5½ _B	.80	.25	.40	1.50	.50	.10	.85	.25	1.35		.25	.10	.20
7	.25	.25	.15	2.00	.70		.70	.15	.75		.25		
38	.80	.25	.45	1.25	.50		.70	.20	1.20	.25	.20	.10	
77	.15	.25	.20	1.00	.30		.30	.10	.40		.20		
85	.20		.20	1.05	.40		.40	.10	.65		.20		
94	.15		.15	1.05	.30		.30	.10	.15		.20		
104	.40		.20	1.50	.40		.40	.10	.50	.20	.20		
303	.40	.25	.20	1.50	.60		.60	.10	.25	.15	.20		
315	.40	.25	1.15	1.50	.40		.65	.10	.30	.15	.20		
379	.85	.25	.30	1.00	.40	.10	.70	.15	.85	.25	.10	.10	
655 _A	.20		.30	.80	.40	.10	.35	.10	.40		.10		
980	.80	.25	.25	2.00	.70		.80	.15	1.20		.25		
1515	1.00	.25	.30	1.50	.50	.10	.80	.20	1.50	.30	.20	.10	
1616	.80	.25	.30	1.50	.50	.10	.80	.20	1.50		.20	.10	
1980	.80	.25	1.00	2.00	.70		.80	.15	1.20		.25		
2500	.15		.20	.50	.25	.05	.30	.10			.20		
3200	.25		.20	.50	.25	.05	.30	.10		.15	.20		

Parts for Screw Jacks

Description	No. 115	No. 130	No. 135	No. 140
Base	\$2.50	\$2.75	\$1.40	\$2.75
Inner Lift Screw	.55	.55	.40	.55
Outer Lift Screw	.90	1.25	.60	1.25
Bevel Gear	.40	.40	.25	.40
Pinion Gear	.20	.20	.20	.20
Pinion Gear Shaft	.15	.15	.15	.15
Lift Screw Cap	.20	.20	.15	.20
Lift Screw Cap Screw	.10	.10	.10	.10
Handle, complete	1.40	1.80	1.10	1.80

For Hydraulic Jack Parts, see page 237.

Parts for Millers Falls and Goodell-Pratt Breast Drills

MILLERS FALLS

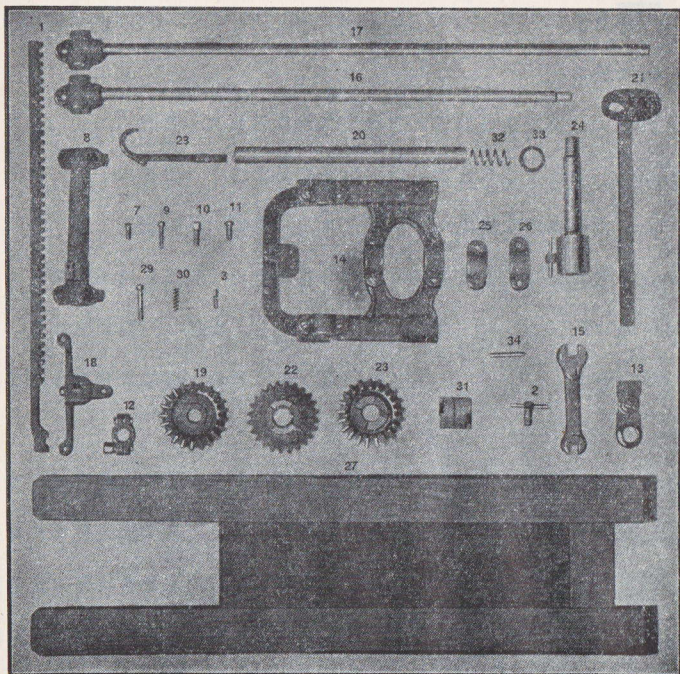
GOODELL PRATT
MILERS FALLS, MASS.

MILLERS FALLS TOOLS

Number	Chuck Complete	Jaws and Springs, Set	Chuck Shell	Chuck Socket	Frame	Large Gear	Small Gear	Crank and Handle	Stationary Side Handle	Breast Plate	Aux. Breast Plate	Spindle	Frame Stem	Ball Bearing	Level	Gear Screw	Crank Screw	Clutch	Clutch Shield	Lock Block Complete
6A	\$2.00	.60	...	...	1.50	1.00	.25	.50	.25	.30	...	.30	...	.25	...	...	...	.20	.15	...
7	1.80	.80	...	...	1.50	1.00	.25	.50	.25	.30	...	.30	...	.25	...	...	...	.20	.15	...
10	2.60	.80	.70	1.40	1.10	1.00	.50	1.35	.35	.40	...	...	...	.25	.35	.15	.15	...	...	...
12	1.70	.80	.70	.40	1.40	1.00	.40	.50	.20	.35	...	...	...	.25	.35	.15	.15	...	...	...
12A	1.65	.60	.65	.55	1.40	1.00	.40	.50	.20	.35	...	...	...	.25	.35	.15	.15	...	...	...
13	2.00	.80	.70	.40	.90	1.00	.30	1.25	.20	.35	...	...	...	.25	.35	.15	.15	...	...	...
15	1.70	.80	.70	.60	1.30	1.10	.40	.60	.35	.35	...	...	...	.25	.35	.15	.15	...	...	...
19	1.40	.60	.55	.70	.90	1.00	.40	.45	.35	.35	...	...	.30	.25	.35	.15	.15	...	...	...
19A	...	.60	.60	.40	.90	.90	.30	.35	.20	.30	...	.40	.30	.25	...	.15	.15	...	...	.25
29	2.25	.60	.70	.30	.90	1.00	.40	.45	.35	.35	...	.35	.20	.25	...	.15	.15	...	...	.25
29A	2.25	.70	...	...	.90	.90	.30	.35	.20	.30	...	.35	...	.25	...	.15	.10	...	...	...
87	2.00	.80	.70	.50	1.30	1.10	.70	3.90	.20	.35	.50	1.20	...	.25	...	.15	.10	...	...	...
97	2.50	.70	.80	.30	1.30	1.10	.70	3.90	.20	.35	.50	1.20	...	.25	...	.15	.10	...	...	...
99	1.90	.75	.70	.40	1.30	.90	.25	.40	.20	.30	.60	...	...	.25	...	.15	.10	...	...	...
100	2.50	.70	.80	.30	1.30	1.00	.25	.40	.20	.30	.50	.50	...	.25	...	.15	.10	...	...	...
112	1.50	.60	.50	.60	.80	.45	.25	.40	.20	.35	...	.45	...	.25	.30	.15	.10	...	...	...
118	2.50	.70	.80	.30	1.40	1.10	.40	.45	.20	.35	...	.45	...	.25	.35	.15	.10	...	...	...
120	1.75	.70	.60	.30	.90	.90	.30	.40	.20	.35	...	.40	.30	...	...	.15	.10	...	...	...
120A	1.75	...	...	...	.90	.85	.30	...	.20	.30	...	.40	.30	.25	...	.10	.10	...	...	.25
200	2.50	.70	.80	.30	1.30	1.05	.25	1.80	.20	.35	.50	.45	.20	.25	...	.15	.10	...	...	...
212	1.80	.70	.30	.30	.80	.45	.25	.40	.20	.35	...	.15	...	.25	.30	.15	.10	...	...	...
219	.80	.80	.30	...	.90	.90	.25	.30	.25	.30	...	.45	.25	.25	...	...	...	...	...	.25
477	1.75	.60	...	...	.90	.90	.25	.30	.25	.30	.30	.30	.25	.25	...	...	...	...	...	.25
0477	1.50	.60	...	...	.80	.80	.25	.30	.20	.30	.30	.30	.25	.25	...	...	...	...	...	.25
666	2.50	.70	.80	.30	2.00	.75	.25	.45	.25	.80	.30	.30	.80	.25	...	...	...	.60	...	...
678	2.00	.60	...	...	2.50	1.00	.35	.50	.25	.80	.30	.30	.45	.25	...	.15	...	...	...	...
2100	2.50	.70	.80	.30	1.30	1.00	.25	.40	.20	.35	...	.45	...	...	...	...	.10	...	...	...
7740	1.00	.50	...	...	.80	.55	.25	.30	.20	.30	...	.35	.25	...	...	...	.10	...	...	...

Please be sure to specify drill number and name of part.

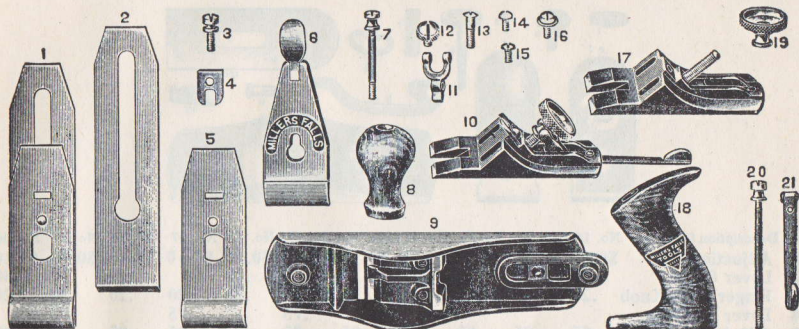
Parts for No. 145 Boring Machine



Ordering by number will avoid possible error and save unnecessary correspondence.

No.	Name of Part	Price	No.	Name of Part	Price
1	Rack.....	\$0.90	19	Spindle Gear.....	\$0.50
2	Chuck Set Screw.....	.10	20	Arbor.....	.40
3	Short Rod Set Screw.....	.10	21	Flat Handle, complete.....	.60
			22	Rack Gear.....	.75
7	Arbor Cap Screw or Spider Screw..	.10	23	Arbor Gear.....	.75
8	Top Cap.....	1.40	24	Chuck Spindle, complete.....	1.00
9	Hook Screw (short) or Rack Screw..	.10	25	Arbor Cap.....	.10
10	Long Rod Set Screw.....	.10	26	Spindle Cap.....	.10
11	Spindle Cap Screw.....	.10	27	Table.....	5.00
12	Stop, complete.....	.35	28	Hook.....	.20
13	Crank Casting, complete.....	.45	29	Hook Screw (long).....	.10
14	Frame.....	6.00	30	Hook Spring.....	.10
15	Wrench.....	.25	31	Clutch.....	.25
16	Short Rod, complete.....	1.15	32	Gear Spring.....	.10
17	Long Rod, complete.....	1.20	33	Gear Washer.....	.10
18	Spider, complete.....	.45	34	Taper Pin.....	.10

Parts for Bench Planes

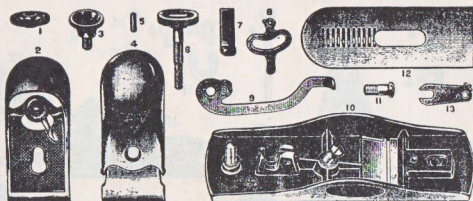


Part No.	Description of Plane	No. 7	No. 8 and 8C	No. 9 9C	No. 10 and 10C	No. 11	No. 14 and 14C	No. 15 and 15C	No. 18 and 18C	No. 22 and 22C	No. 24 and 24C
1	Double Plane Iron	\$0.90	\$1.00	\$1.10	\$1.50	\$1.25	\$1.00	\$1.10	\$1.20	\$1.25	\$1.30
2	Single Plane Iron	.55	.60	.65	.75	.80	.60	.65	.75	.80	.80
3	Frog Adjusting Screw	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
4	Frog Clip	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
5	Plane Iron Cap	.35	.40	.45	.65	.45	.40	.45	.45	.45	.50
6	Lever Cap, complete	.50	.50	.50	.80	.50	.50	.50	.50	.50	.50
7	Knob Bolt and Nut	.20	.20	.20	.25	.20	.20	.20	.20	.20	.20
8	Plane Knob	.30	.30	.30	.85	.30	.30	.30	.30	.30	.30
9	Plane Bottom	1.70	2.00	2.00	3.00	2.40	2.40	2.40	3.30	4.70	5.70
10	Frog, complete	.70	.70	.70	.70	.70	.70	.70	.70	.70	.70
11	"Y" Adjusting Lever	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
12	Cap Screw	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
13	Lever Cap Screw	.10	.10	.10	.15	.10	.10	.10	.10	.10	.10
14	Frog Clip Screw	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
15	Plane Handle Screw					.10	.10	.10	.10	.10	.10
16	Frog Screw	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
17	Frog	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40
18	Plain Handle	.40	.40	.40	1.50	.40	.40	.40	.40	.40	.40
19	Adjusting Nut	.20	.20	.20	.25	.20	.20	.20	.20	.20	.20
20	Handle, Bolt and Nut	.20	.20	.20	.25	.20	.20	.20	.20	.20	.20
21	Lateral Adjusting Lever	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20

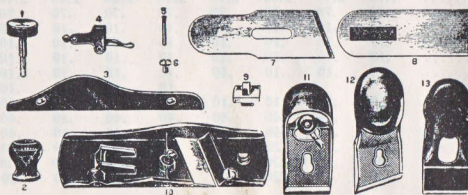
Parts for No. 85 Rabbet and No. 95 Weather Strip Planes

No.	Name of Part	No. 85	No. 95
4304	Bottom	\$2.00	\$2.00
14232	Plane Iron	.40	.40
21266	Lever	.20	.20
12391	Lever Thumb Screw	.15	.15
12247	Lever Screw	.10	.10
14231	Adjusting Lever	.25	.25
14235	Adjusting Lever Screw	.10	.10
21471	Bottom Plate		.75
14789	Bottom Plate Lock Nut		.15
14233	Rivet	.10	.10
14234	Line Cutter (Spur)	.10	.10
21265	Width Gauge	.50	.50
14221	Width Gauge Stop	.20	.20
14219	Width Gauge Lock Screw	.10	.10
21264	Depth Gauge	.40	.50
14220	Depth Gauge Lock Screw	.20	.20

Parts for Block Planes



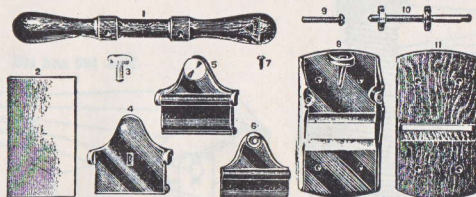
No.	Description for Plane	No. 16	No. 17	No. 26	No. 27	No. 36	No. 37	No. 46	No. 47	No. 56	No. 57	No. 66
1	Adjusting Nut	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
2	Lever Cap	.20	.20	.30	.30			.30		.20	.20	.30
3	Finger Rest Knob	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
4	Lever Cap					.75	.75		.75			
5	Adj. Lever Pin	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
6	Adjusting Nut	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
7	Frog, complete							.20	.20	.20	.20	.20
8	Eccentric Plate	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
9	Lateral Adj. Lever	.20	.20	.20	.20	.20	.20					
10	Bottom	1.40	1.50	1.50	1.50	1.50	1.50	1.20	1.50	1.20	1.50	1.00
11	Lever Cap Screw	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
12	Single Plane Irons	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
13	Adjusting Lever	.10	.10	.10	.10	.10	.10					



No.	Description for Plane	No. 3	No. 5	No. 07	No. 33	No. 45	No. 55	No. 68	No. 75	No. 87	No. 97
1	Adjusting Nut			\$0.20		\$0.20			\$0.20		
2	Plane Knob			.30		.30		\$0.20	.30	\$0.20	\$0.20
3	Detachable Side			.50							
4	Frog, complete			.20		.20	\$0.30		.20		.30
5	Frog Pin			.05		.05	.05		.05		.05
6	Side Screw (per pair)			.20							
7	Single Plane Iron			.50							
8	Single Plane Iron	\$0.10	\$0.20		\$0.10	.45	.20	.30	.45	.30	.45
9	Frog, complete			.25		.25			.25		
10	Plane Bottom	.20	.40	1.50	.20	.50	.40	.70	.60	.50	.60
11	Lever Cap					.20			.20		
12	Lever Cap			.30							
13	Lever Cap	.10	.20		.10		.20	.20		.20	.20

When ordering parts be sure to give the number and name of the part and the number of the plane it is to fit.

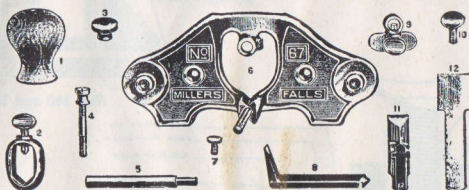
Parts for Scraper Planes



In addition to giving the part number, also give catalog number of the tool.

Part No.	Description	Price List
1	Plane Handle.....	\$1.00
2	Plane Iron.....	.45
3	Lever Cap Screw.....	.10
4	Frog.....	.70
5	Frog, complete.....	1.20
6	Lever Cap.....	.40
7	Wood Bottom Screw (set of 4).....	.10
8	Plane Bottom.....	2.40
9	Plane Hand Screw.....	.10
10	Adjusting Nut.....	.20
11	Wood Bottom.....	1.00

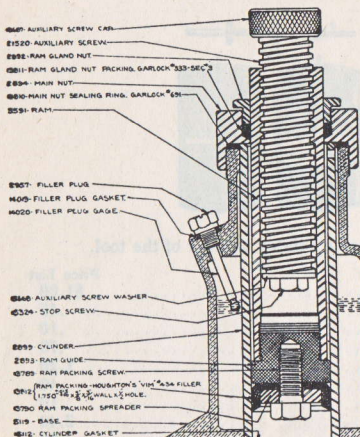
Parts for Routers and Rabbet Planes



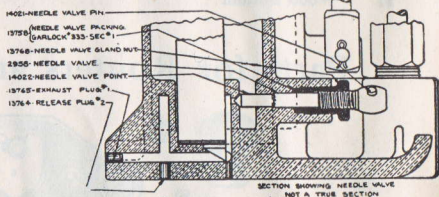
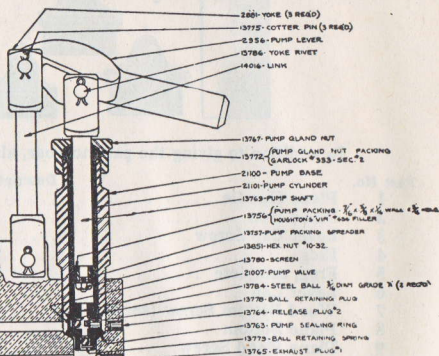
In addition to giving part number, also give catalog number of the tool.

Part No.	Description	Price List
1	Plane Knob.....	\$0.30
2	Collar.....	.50
3	Adjusting Nut.....	.10
4	Knob Bolt and Nut.....	.20
5	Extra Attachment Stud.....	.10
6	Plane Bottom.....	2.00
7	Clamp Screw.....	.10
8	Single Plane Iron.....	.60
9	Extra Attachment.....	.40
10	Thumb Screw.....	.10
11	Lever Cap.....	.20
12	Single Plane Iron.....	.40

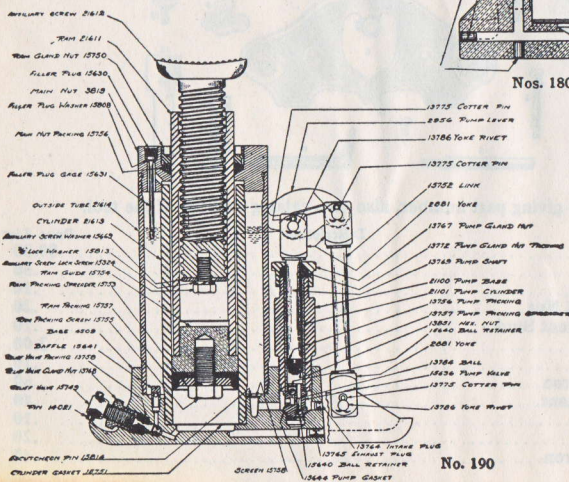
Parts for Hydraulic Jacks



Nos. 180 and 185



Nos. 180 and 185



No. 190

Parts for Hydraulic Jacks

Name of Part	No. 180		No. 185		No. 190	
	No.	Price	No.	Price	No.	Price
Yoke.....	2881	\$0.30	2881	\$0.30	2881	\$0.30
Pump Lever.....	2956	.60	2956	.60	2956	.60
Ram Gland Nut.....	2895	.75	2885	1.00	15750	1.00
Ram Guide.....	2893	1.00	13211	1.50		
Main Nut.....	2894	1.50	2879	1.80	3819	5.00
Cylinder.....	2899	2.00	2886	4.00	21613	4.00
Filler Plug.....	2957	.30	2957	.30	15630	.20
Needle Valve.....	2958	.25	2958	.25	15749	.25
Upper Handle.....	2966	.50	2966	.50	2966	.50
Lower Handle.....	2967	1.00	2967	1.00	2967	1.00
Ram.....	3591	1.50	2883	2.25	21611	2.25
Base.....	5119	8.00	5120	10.00	4509	7.00
Auxiliary Screw Cap.....	13687	1.00	13686	1.25		
Pump Packing.....	13756	.60	13756	.60		
Pump Packing Spreader.....	13757	.05	13757	.05	13757	.05
Needle Valve Packing.....	13758	.10	13758	.10	13758	.10
Pump Sealing Ring.....	13763	.15	13763	.15	15644	.15
Release Plug No. 2.....	13764	.05	13764	.05	13764	.05
Exhaust Plug No. 1.....	13765	.05	13765	.05	13765	.05
Pump Gland Nut.....	13767	.10	13767	.10	13767	.10
Needle Valve Gland Nut.....	13768	.15	13768	.15	13768	.15
Pump Shaft.....	13769	.25	13769	.25	13769	.25
Pump Gland Nut Packing.....	13772	.10	13772	.10	13772	.10
Cotter Pin (Set of 3).....	13775	.05	13775	.05	13775	.05
Plug Spring.....	13777	.05	13777	.05	13777	.05
Ball Retaining Plug.....	13778	.05	13778	.05		
Ball Retaining Spring.....	13779	.10	13779	.10	15640	.10
Screen.....	13780	.05	13780	.05	15758	.10
Steel Ball, 5/16 inch (Handle).....	13783	.05	13783	.05	13783	.05
Steel Ball, 3/16 inch (Pair).....	13784	.10	13784	.10	13784	.10
Yoke Rivet (Set of 3).....	13786	.10	13786	.10	13786	.10
Ram Packing Screw.....	13789	.20	13766	.30	15755	.30
Ram Packing Spreader.....	13790	.15	13770	.15	15753	.15
Main Nut Sealing Ring.....	13810	.05	13771	.10		
Ram Gland Nut Packing.....	13811	.15	13760	.10	15756	.20
Ram Packing.....	13812	1.00	13755	1.20	15757	1.20
Handle Plug.....	13814	.20	13814	.20	13814	.20
Pump Hex. Nut.....	13851	.10	13851	.10	13851	.10
Link.....	14016	.20	14016	.20	15752	.30
Filler Plug Gasket.....	14019	.35	14019	.35	15808	.10
Filler Plug Gauge.....	14020	.15	14020	.15	15631	.15
Needle Valve Pin (Set of 3).....	14021	.05	14021	.05	14021	.05
Needle Valve Point.....	14022	.05	14022	.05		
Cylinder Gasket.....	15112	.25	15113	.35	15751	.35
Ram Stop Screw.....	15324	.05	15324	.05	15324	.05
Auxiliary Screw Washer.....	15668	.20	15669	.25	15669	.25
Pump Valve.....	21007	.15	21007	.15	15636	.30
Pump Base.....	21100	.40	21100	.40	21100	.40
Pump Cylinder.....	21101	1.00	21101	1.00	21101	1.00
Auxiliary Screw.....	21520	1.50	21519	1.80	21612	3.00
Baffle.....					15641	.30
Outside Tube.....					21614	4.00

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